

Service Manual

Amplifier

Stereo Integrated Amplifier

SU-X502



RECEIVED
25 MAY 1991
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Color

(K) Black Type

Areas

Country Code	Area	Color
(E)	Continental Europe	(K)
(EB)	Great Britain	
(EG)	F.R. Germany & Italy	
(GC)	Third Region	
(GN)	Oceania	

SPECIFICATIONS

(DIN 45 500)

■ AMPLIFIER SECTION

DIN power output

1 kHz THD: 1 % $2 \times 60 \text{ W (8 } \Omega \text{)}$

Total harmonic distortion

rated power at 1 kHz 1 % (8 Ω)

Harmonic distortion

half power at 1 kHz (analog section) 0.009 % (8 Ω)

Residual hum and noise

0.3 mV

Damping factor

30 (8 Ω)

Input sensitivity and impedance

PHONO 3 mV/47 k Ω TUNER, TAPE 150 mV/22 k Ω CD, VDP, VCR 200 mV/22 k Ω

Maximum input voltage (1 kHz, RMS)

PHONO 100 mV

S/N (rated power 8 Ω)

PHONO 75 dB (IHF, A: 79 dB)

TUNER, CD, TAPE, VDP, VCR 82 dB (IHF, A: 83 dB)

Frequency response

PHONO RIAA standard curve

 $\pm 0.8 \text{ dB (30 Hz} \sim 15 \text{ kHz)}$ TUNER, CD, TAPE, VDP, VCR 15 Hz \sim 55 kHz (-3 dB)CD, DAT, AUX (digital section) 15 Hz \sim 20 kHz (-0.5 dB)

Tone controls

BASS 50 Hz, $+10 \text{ dB} \sim -10 \text{ dB}$ TREBLE 20 kHz, $+10 \text{ dB} \sim -10 \text{ dB}$

Muting

 -20 dB

Super bass

60 Hz, $+8 \text{ dB}$

Output voltage

TAPE, VCR REC OUT

150 mV

Channel balance, TUNER, 250 Hz \sim 8,300 Hz

 $\pm 1.0 \text{ dB}$

Channel separation, (TUNER, 1 kHz) (A SPEAKER)

55 dB

Headphones output level and impedance

520 mV/330 Ω

Load impedance

A or B, A and B

8 $\Omega \sim 16 \Omega$

SURROUND

8 $\Omega \sim 16 \Omega$

■ VIDEO SECTION

VIDEO OUTPUT

1 Vpp/75 Ω

VCR MONITOR

1 Vpp/75 Ω

■ GENERAL

Power consumption

330 W

Power supply

For Great Britain and Oceania AC 50 Hz/60 Hz, 230 \sim 240 V

For Continental Europe, F.R. Germany and Italy

AC 50 Hz/60 Hz, 220 V

For Third Region AC 50 Hz/60 Hz, 110 V/127 V/220 V/240 V

Dimensions (W \times H \times D)

360 \times 129 \times 305 mm(14-3/16" \times 5-3/32" \times 12")

Weight

6.5 kg (14.3 lb.)

Notes:

- Specifications are subject to change without notice.
Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

Technics

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■ BEFORE REPAIR

- (1) Turn off the power supply. Using a 10 Ω , 5 W resistor connect both ends of power supply capacitors (C711, C712, 3300 μ F) in order to discharge the voltage.
- (2) Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz/60 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 110 V/127 V/220 V/240 V.

Power supply voltage	AC 110 V	AC 120 V	AC 220 V	AC 230 V	AC 240 V
Consumed current 50 Hz	323~754 mA	297~694 mA	160~373 mA	154~360 mA	146~341 mA
Consumed current 60 Hz	316~737 mA	291~679 mA	156~365 mA	150~351 mA	144~336 mA

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

*No sound is heard when the power is switched ON.

*Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON AGAIN.

■ ACCESSORIES

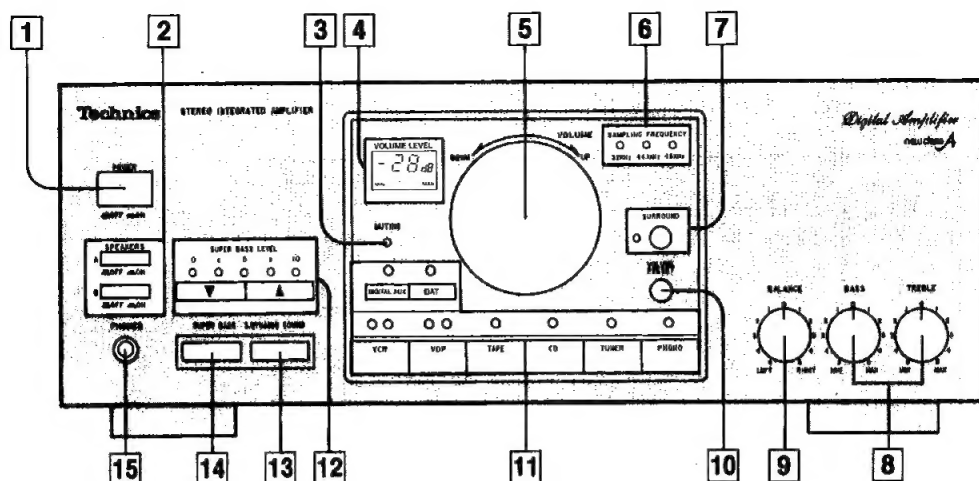
- AC power supply cord 1
Configuration of AC power supply cord differs according to area.

SJA187..... For (E) (EG) area only.
SJA173..... For (GN) area only
SJA188..... For (EB) area only.
RJA0004 For (GC) area only.
SFDAC05E03 For others.

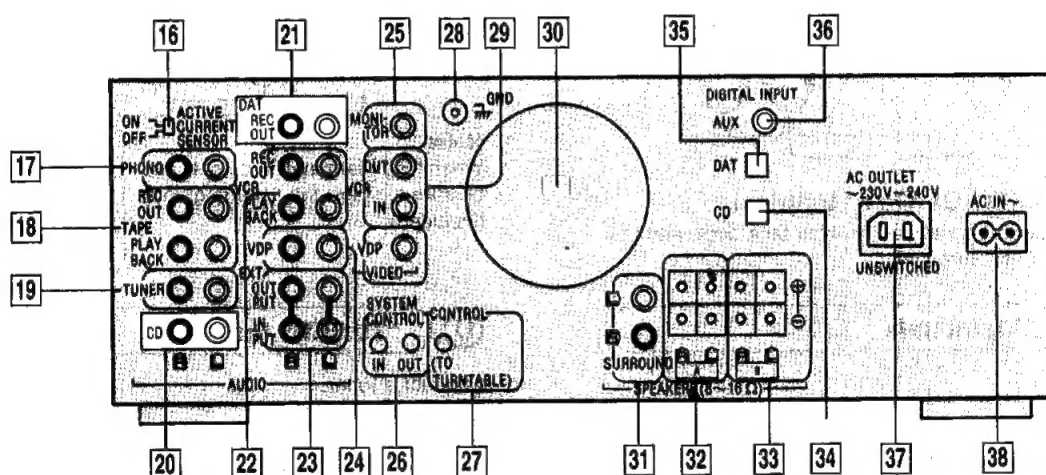
- AC plug adaptor 1

SJP9215 For (GC) area only.

■ LOCATION OF CONTROLS



- | | |
|--|---|
| 1 Power switch (POWER) | 9 Balance control (BALANCE) |
| 2 Speaker selectors (SPEAKERS) | 10 Volume preset button (VOLUME PRESET) |
| 3 Muting indicator (MUTING) | 11 Input selectors/indicators |
| 4 Volume-level indicator (VOLUME LEVEL) | 12 Super bass level control buttons/indicators (SUPER BASS LEVEL) |
| 5 Volume control (VOLUME) | 13 Super dynamic sound button/indicator (S. DYNAMIC SOUND) |
| 6 Sampling frequency indicators (SAMPLING FREQUENCY) | 14 Super bass button/indicator (SUPER BASS) |
| 7 Surround-sound button/indicator (SURROUND) | 15 Headphones jack (PHONES) |
| 8 Tone controls (BASS/TREBLE) | |

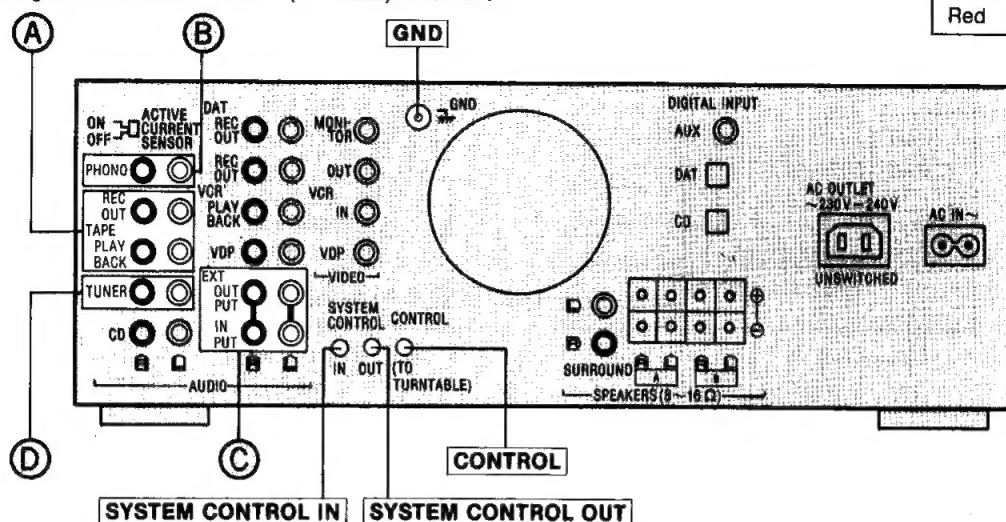


- | | |
|------------------------------------|------------------------------------|
| 16 Active current sensor switch | 28 GND terminal |
| 17 Phono input terminal | 29 VCR out/in terminal |
| 18 Tape rec out/playback terminal | 30 Cooling fan |
| 19 Tuner input terminal | 31 Surround-sound speaker terminal |
| 20 CD Input terminal | 32 Main speaker A terminal |
| 21 DAT recout terminal | 33 Main speaker B terminal |
| 22 VCR recout/playback terminal | 34 CD digital input terminal |
| 23 EXT output/input terminal | 35 DAT digital input terminal |
| 24 VDP input terminal | 36 AUX digital input terminal |
| 25 MONITOR terminal | 37 AC outlet |
| 26 System control IN/OUT terminal | 38 AC inlet |
| 27 Control terminal (to turntable) | |

■ CONNECTIONS

Make connections to each component in the system by using stereo connection cables (not included).
See the operating instructions of the tuner (ST-X902L) for details.

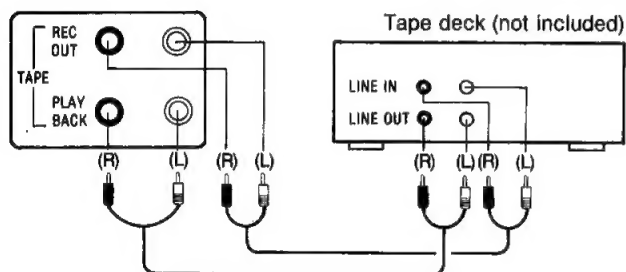
Stereo connection cable
White (L) ————
Red (R) ————



Connecting audio components

A "TAPE" terminals

Connect a tape deck.

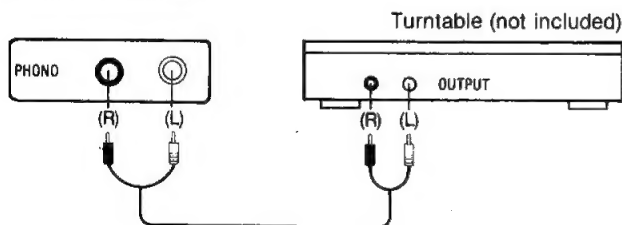


■ "SYSTEM CONTROL OUT" terminal

This terminal is used to connect a Technics tape deck with the "SYSTEM CONTROL IN" terminal.

B "PHONO" terminals

Connect a turntable.



■ "GND" terminal

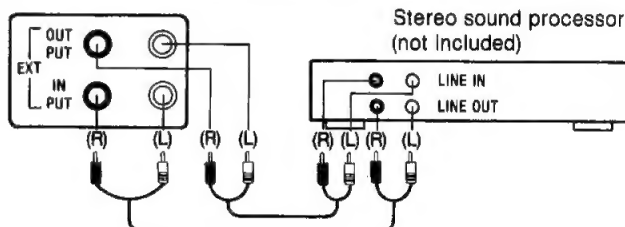
This terminal is for use with a turntable which has a ground wire.

■ "CONTROL" terminal

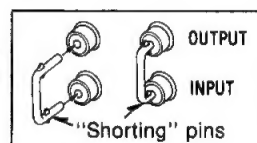
This terminal is used to connect a Technics turntable with the "REMOTE/SYNCHRO REC" terminal.

C "EXT" terminals

Connect a stereo sound processor.

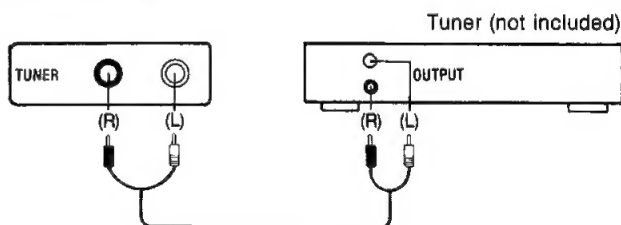


Note:
When these terminals are not in use, be sure to insert the "shorting" pins (included).



D "TUNER" terminals

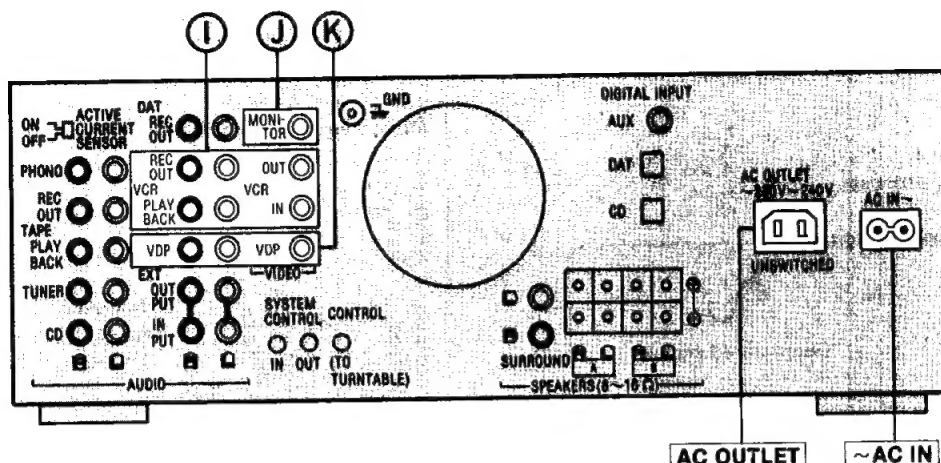
Connect a tuner.



■ "SYSTEM CONTROL IN" terminal

This terminal is used to connect a Technics tuner with the "SYSTEM CONTROL OUT" terminal.

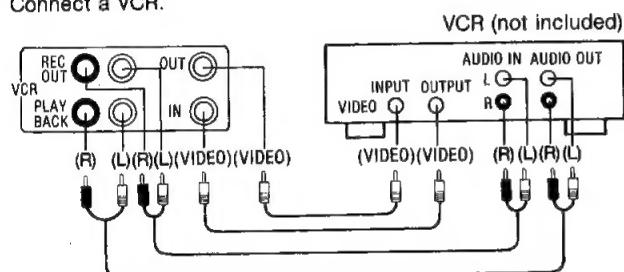
Make connections to each component by using stereo connection cables (not included) and video connection cables (not included).



Connecting video equipment

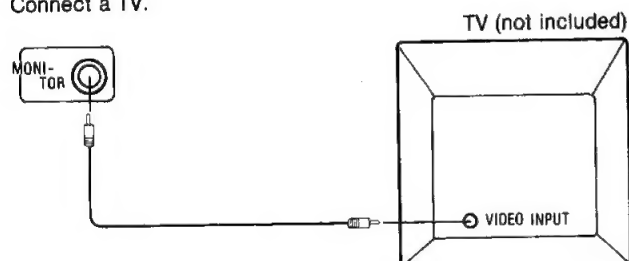
I "VCR" terminals

Connect a VCR.



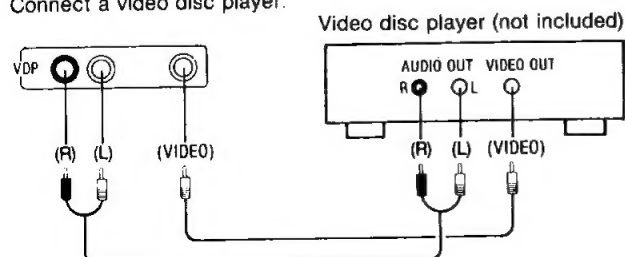
J "MONITOR" terminal

Connect a TV.



K "VDP" terminals

Connect a video disc player.



AC outlet ("AC OUTLET")

Do not connect video equipment (such as a TV, etc.) to the AC outlet of this unit. (This outlet is intended for audio equipment.) Do not exceed the indicated power ratings when connecting to this outlet.

"UNSWITCHED" outlet:

Power is always available, regardless of power switch. Audio equipment rated up to 60 W can be connected here.

Note:

The configuration of the AC outlet differs according to area.

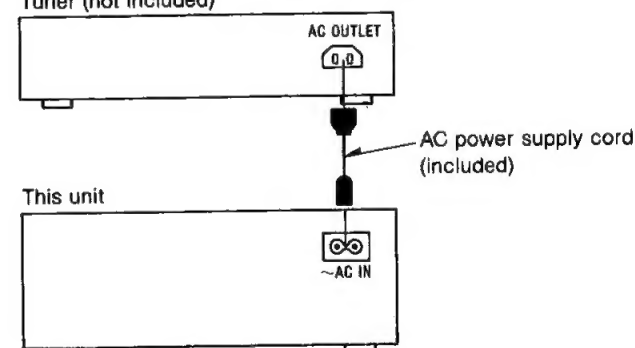
AC power supply cord

Connect the AC power supply cord (included) after all other cables and cords are connected.

Notes:

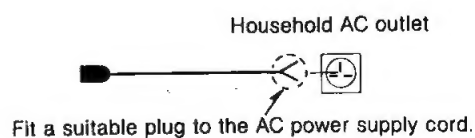
- Configuration of the AC outlet and AC power supply cord differs according to area.
- If this unit is not to be connected with the tuner, the cord is to be connected to the household AC outlet.

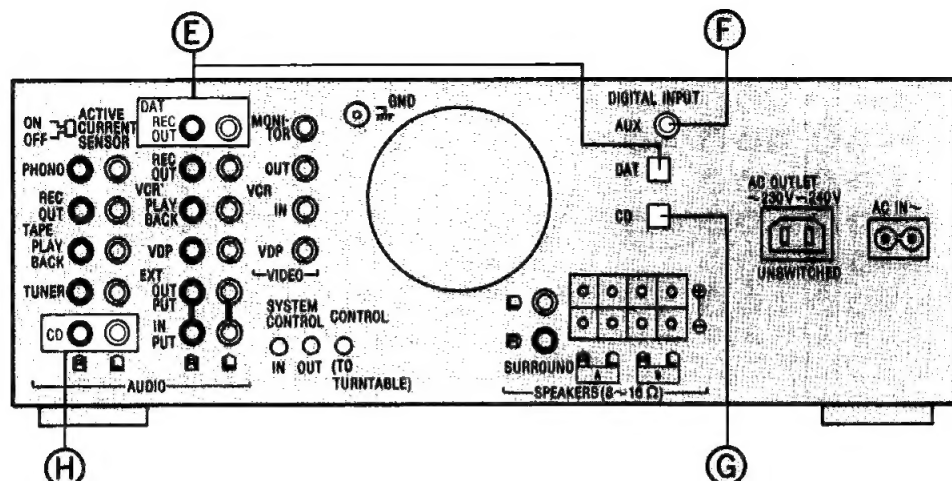
Tuner (not included)



For United Kingdom

Cut off and dispose of the plug and replace with a suitable plug.

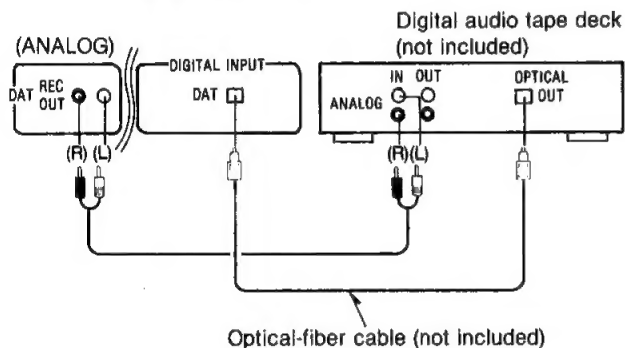




Connecting audio components

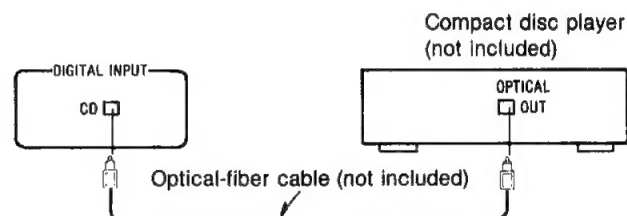
E "DAT" terminals (ANALOG/DIGITAL)

Connect a digital audio tape deck.
Recordings can be made to the digital audio tape deck.



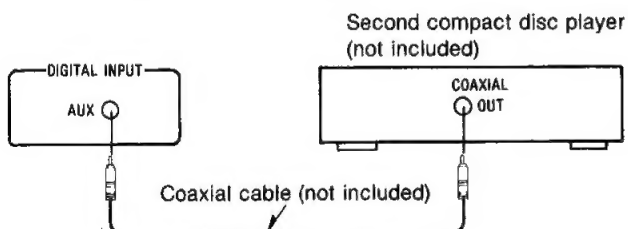
G "CD" terminal (DIGITAL)

Connect a compact disc player.



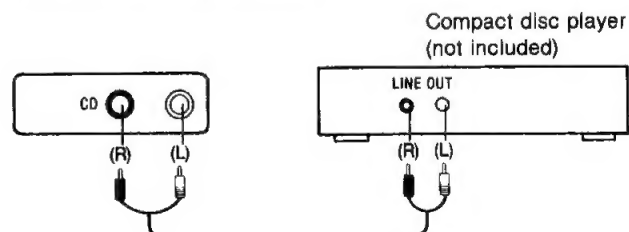
F "AUX" terminal (DIGITAL)

Connect a second compact disc player, etc.



H "CD" terminals (ANALOG)

Connect a compact disc player.

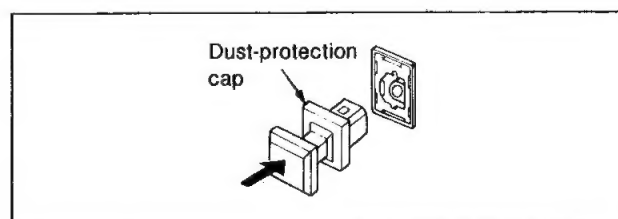


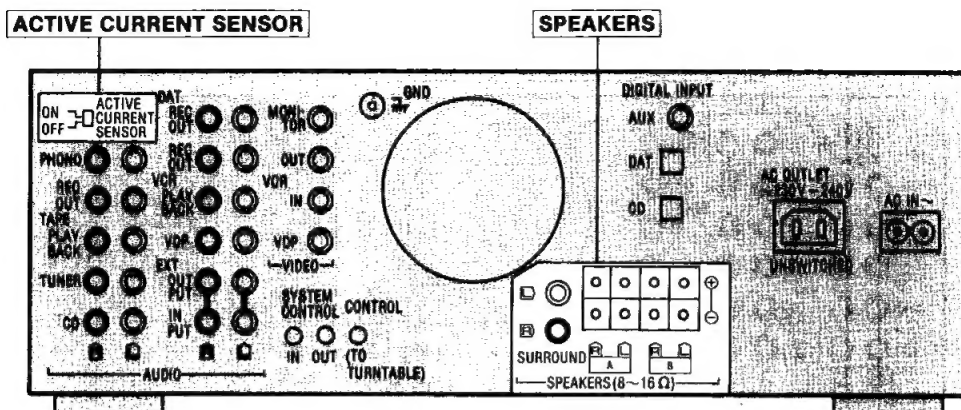
■ "DIGITAL INPUT" (DAT, CD) terminals of this unit

These terminals are protected by dust-protection caps to avoid damage by dust, etc.

Remove the caps only when the "DIGITAL INPUT" terminals are to be used.

When these terminals are not being used, attach the caps as shown in the illustration at right.





Connection of speaker systems

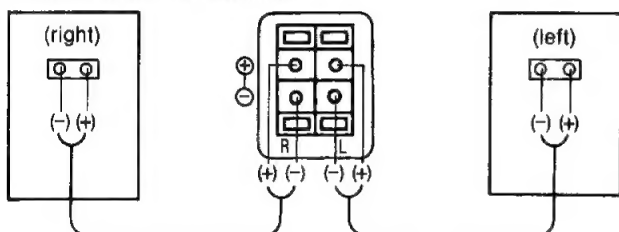
Three pairs of speaker systems (main, second, surround-sound) can be connected to this unit.

Speaker systems that can be connected to any of the speaker connection terminals of this unit are speaker systems with an impedance of 8 to 16 ohms.

Make connections to each speaker system by using speaker cords (not included).

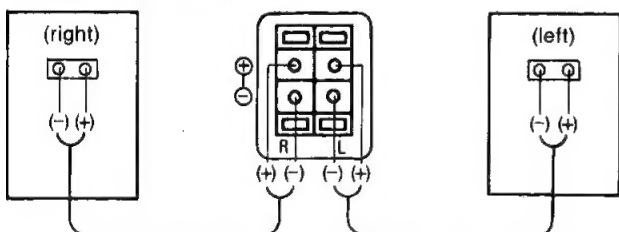
Main speaker systems (not included)

Connect to the "A" terminals.



Second speaker systems (not included)

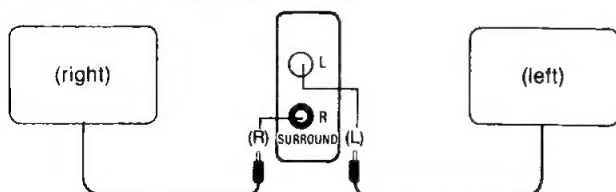
Connect to the "B" terminals.



Surround-sound speaker systems (not included)

Connect to the "SURROUND" terminals.

- Be sure to connect both speaker systems. If only one side is connected, no sound will be heard.



How to use the active current sensor

The selector is used to enjoy powerful super-bass sound.

ON: Switch ON when connecting the Technics system speakers (SU-X902: SB-CS90, SU-X502: SB-CS90/CS70).

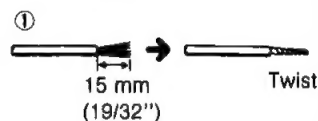
OFF: Switch OFF when connecting speakers other than Technics system speakers.

Notes:

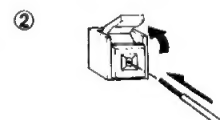
- When connecting speakers other than system speakers, sound from the speakers may not be heard if the selector is pressed ON, because the protecting circuit on the amplifier becomes active.
- The active current sensor activates only for the speaker systems connected to the "A" terminals.

To connect cords to terminals

- Strip off the outer covering, and twist the center conductor.



- Tilt the lever back and insert the cord.



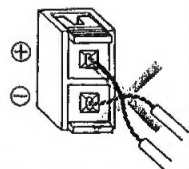
- Close the lever and pull the cord gently to be sure that it is secure.

Note:

Be sure to only connect positive (+) cords to positive (+) terminals, and negative (-) cords to negative (-) terminals.

Note:

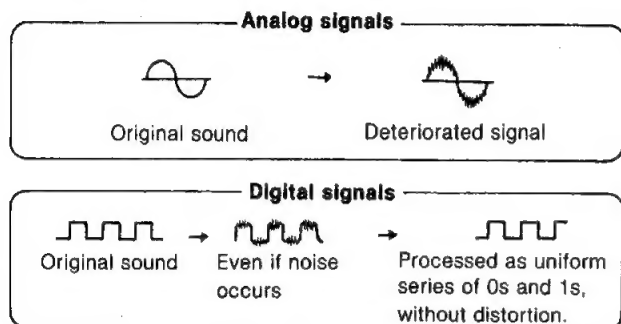
To prevent damage to circuitry, never short-circuit the plus (+) and minus (-) speaker wire.



DIGITALIZATION OF AUDIO SIGNALS

Why digitize?

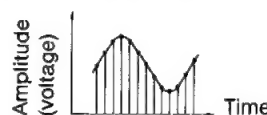
- Audio signals are analog signals with a continuous form.
- When these audio signals are subjected to repeated electronic processing (recording, playback, etc.), they become noisy and distortion occurs, thus resulting in deterioration of the sound quality.
- When these signals are first digitized before processing, they have the following advantages that prevent deterioration of the sound quality:
 - (1) Resistance to noise
 - (2) Extremely low distortion
 - (3) Flat, even frequency response



How signals are digitized

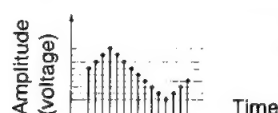
If it is known to what degree of minuteness the human ear can distinguish sounds, it is then possible, by using that data as the standard reference, to digitize them by dividing analog signals into minute pieces, after which they can be transmitted with a high degree of precision, and thereafter recorded and played back in the digitized format.

Analog signals are sampled, quantified and encoded.



Sampling:

Analog signals are minutely sub-divided on the lateral axis.

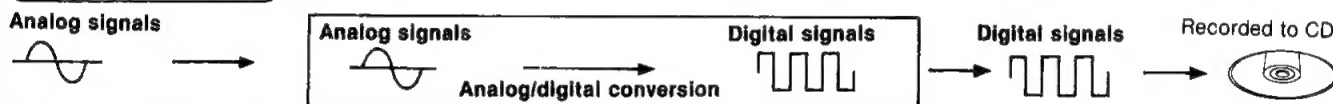


Quantification:

Sampled signals are minutely sub-divided on the vertical axis.

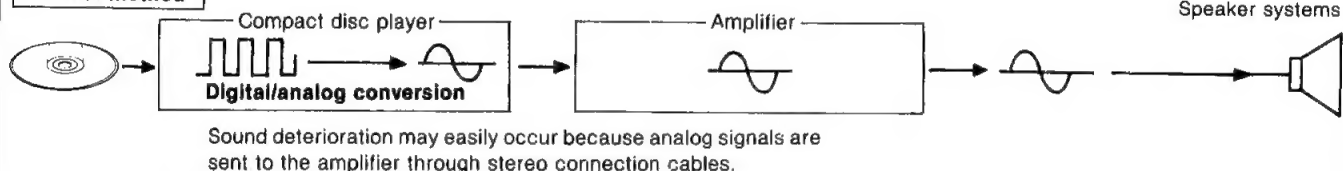
Digitalization example (recording to CD and play of CD)

Recording to CD

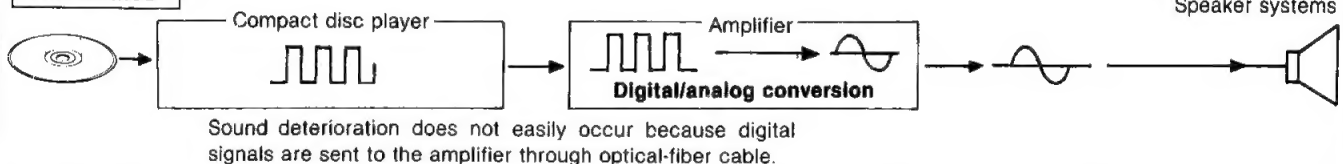


CD play

Former method



This method



What the sampling frequency is

The sampling frequency expresses the degree of minuteness to which signals can be cut, relative to a certain specified time interval, during sampling.

For compact disc sound:

Analog signals are cut 44,100 times (i.e., 44.1 kHz) during one second.

This 44.1 kHz is, therefore, the sampling frequency for compact disc sound.

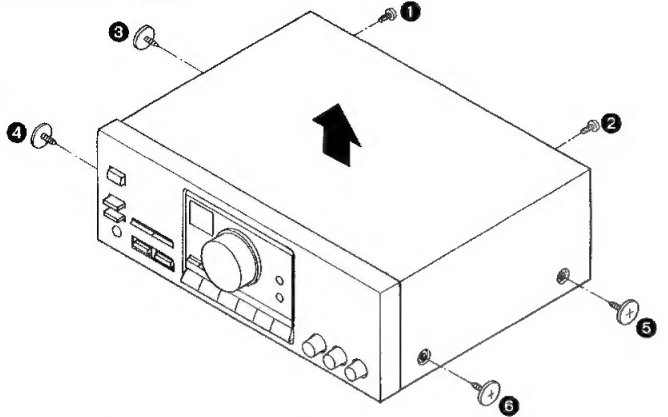
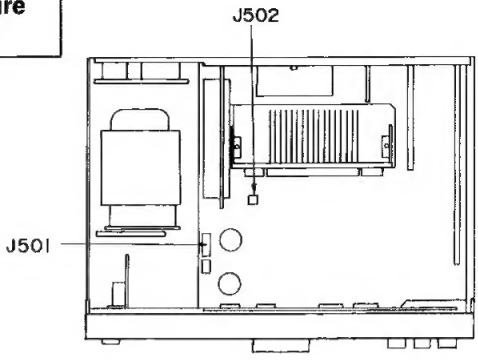
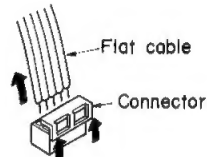
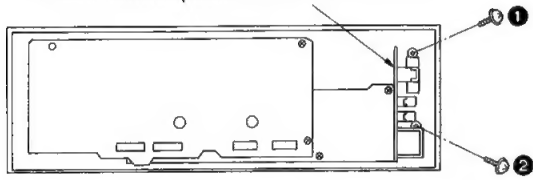
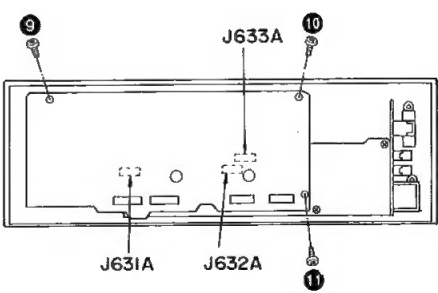
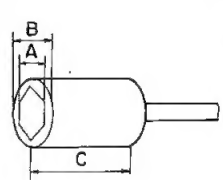
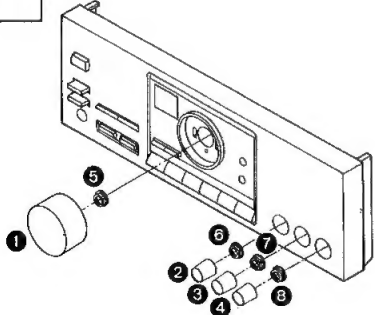
What analog/digital conversion is

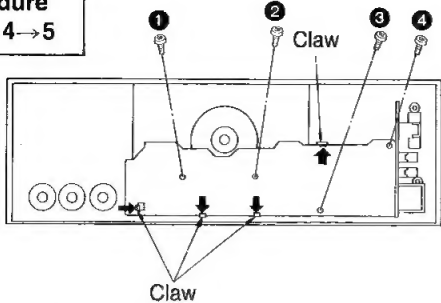
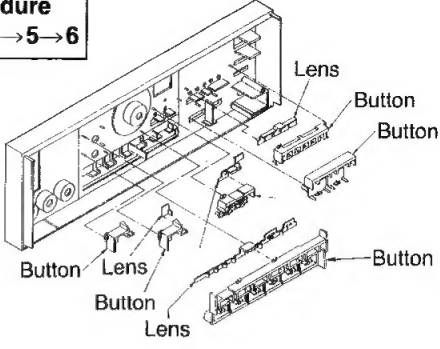
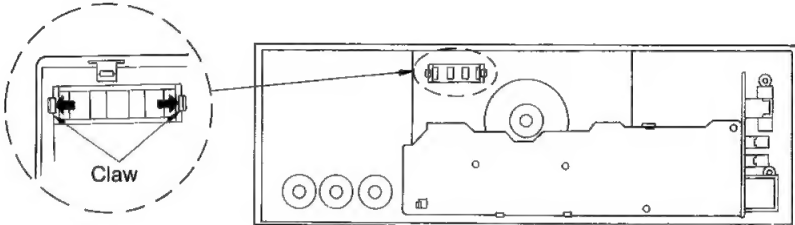
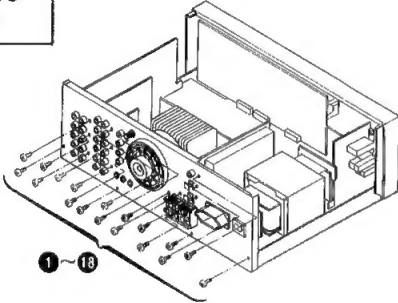
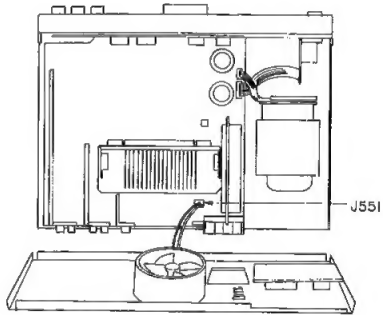
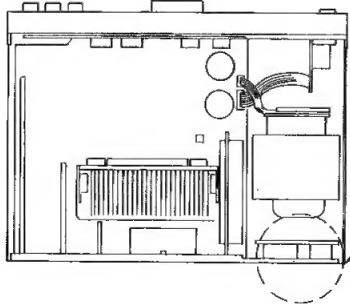
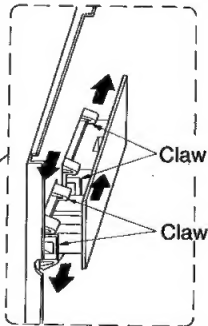
Audio signals (analog signals) are taken out (sampled) at certain fixed time intervals. The points at which this sampling frequency occurs are digitally encoded and converted to digital signals.

What digital/analog conversion is

Each sampling frequency point is returned (converted) to voltage, thus converting digital signals to the analog signals that we can hear.

DISASSEMBLY INSTRUCTIONS

Ref. No. 1	Removal of the Cabinet	Ref. No. 2	Removal of the Front Panel Unit
Procedure 1	 <ol style="list-style-type: none"> 1. Remove the 6 screws (1~6). 2. Remove the cabinet in the direction of the arrow. 	Procedure 1→2	 <ol style="list-style-type: none"> 1. Remove the 2 connectors (J501, J502). <p>—Removal of the Connector—</p>  <ol style="list-style-type: none"> 2. Remove the 3 screws (1~3). 3. Remove the front panel unit in the direction of the arrow.
Ref. No. 3	Removal of the Power Switch/Speaker Select Switch P.C.B.		
Procedure 1→2→3	 <p>Power switch/Speaker select switch P.C.B.</p> <p>•Remove the 2 screws (1, 2).</p>		
Ref. No. 4	Removal of FL Drive P.C.B.		  <p>A: 11 mm B: 16 mm C: longer than 22 mm</p> <p>•Use a wrench of the dimensions shown in the illustration above to remove nuts.</p> <ol style="list-style-type: none"> 3. Remove the 3 screws (9~11). 4. Remove the 3 connectors (J631A, J632A, J633A).
Procedure 1→2→4	 <ol style="list-style-type: none"> 1. Remove the 4 knobs (1~4). 2. Remove the 4 nuts (5~8). 		

Ref. No. 5	Removal of the Operation P.C.B.	Ref. No. 6	Removal of the Operation Buttons
Procedure 1→2→4→5	 <p>1. Remove the 4 screws (①~④). 2. Release the 4 claws in the direction of the arrow.</p>	Procedure 1→2→4→5→6	 <p>●Pull out the buttons and Lens.</p>
Ref. No. 7	Removal of the Sampling Frequency Indicator Lens		
Procedure 1→2→4→7	 <p>●Release the 2 claws.</p>		
Ref. No. 8	Removal of the Rear Panel		
Procedure 1→8	 <p>1. Remove the 18 screws (①~⑱).</p>	 <p>2. Release the connector (J551).</p>	
Ref. No. 9	Removal of the AC OUTLET/AC IN P.C.B.		
Procedure 1→9	 <p>●Release the 4 claws.</p>		

Ref. No.
10

Removal of the P.C.B.s

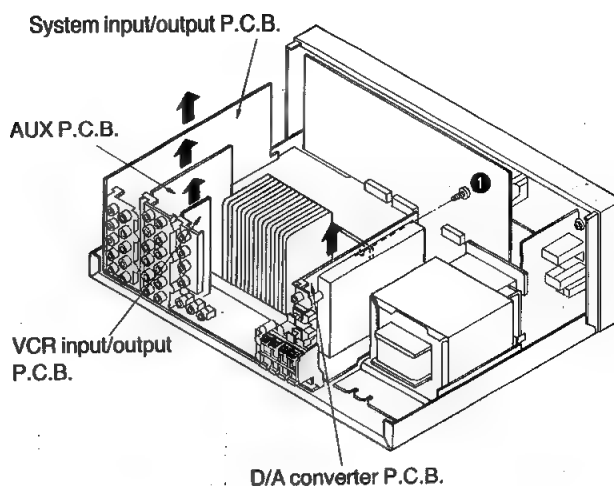
Procedure
1→8→10

■ Removal of the D/A converter P.C.B.

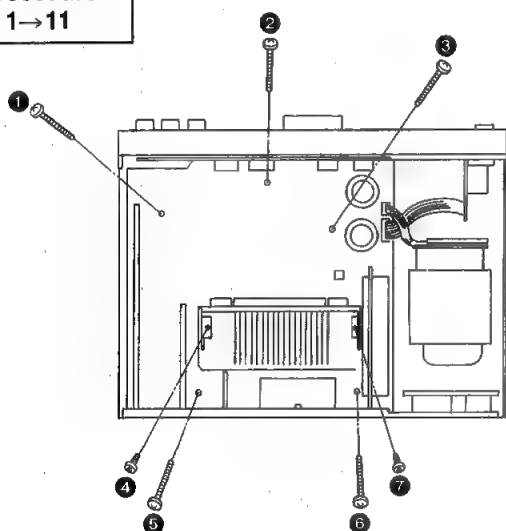
1. Remove the screw (1).
2. Remove the D/A converter P.C.B. in the direction of the arrow.

■ Removal of the other P.C.B.

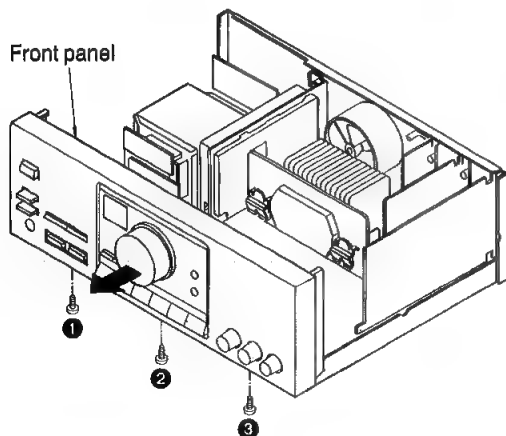
- Remove the P.C.B. in the direction of the arrow.

Ref. No.
11

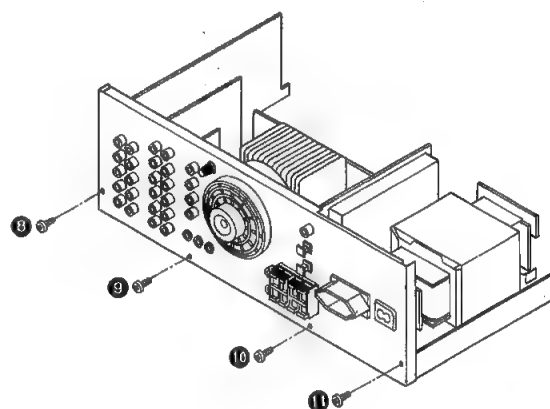
Check of the main P.C.B.

Procedure
1→11

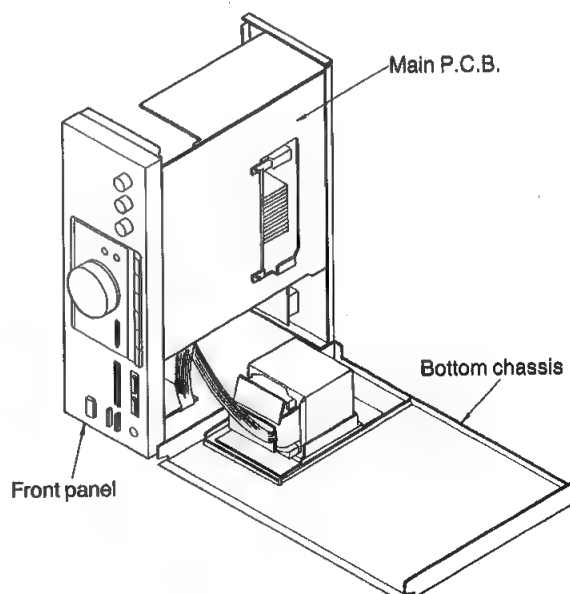
1. Remove the 7 screws (1~7).



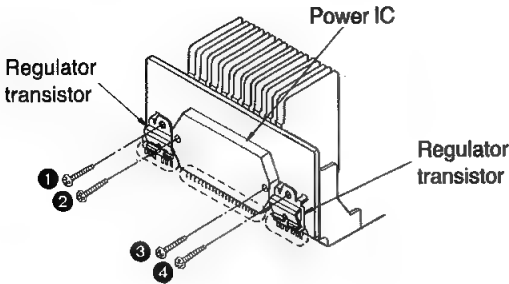
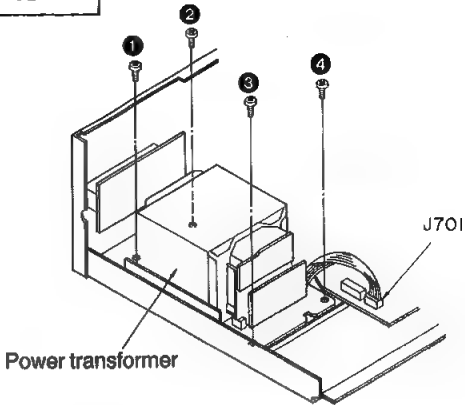
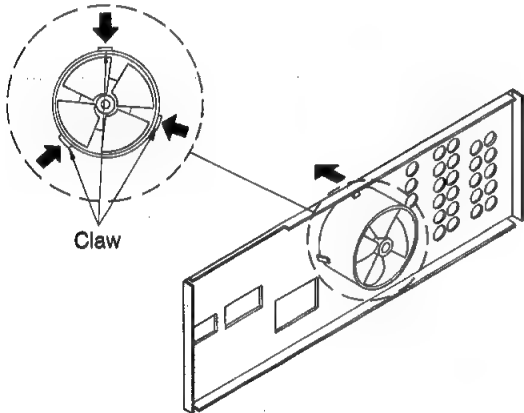
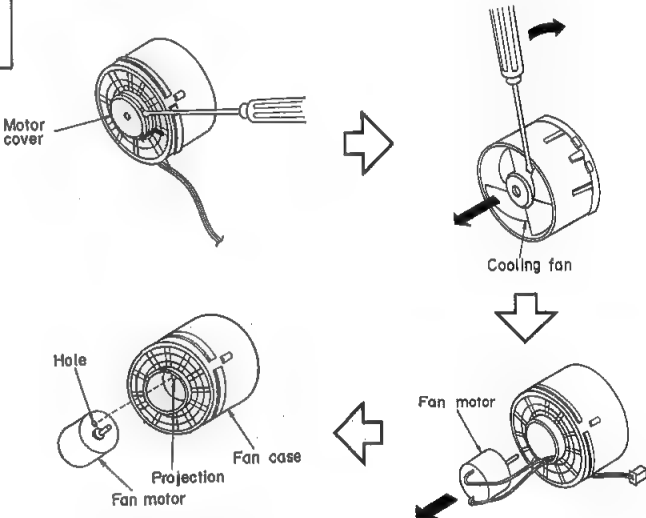
3. Remove the 3 screws (12~14).
4. Remove the front panel unit in the direction of the arrow.
*Connect 2 flat cables (J501A, J502).



2. Remove the 4 screws (8~11).



5. Remove the bottom chassis.
6. Reinstall the front panel unit to the main P.C.B.

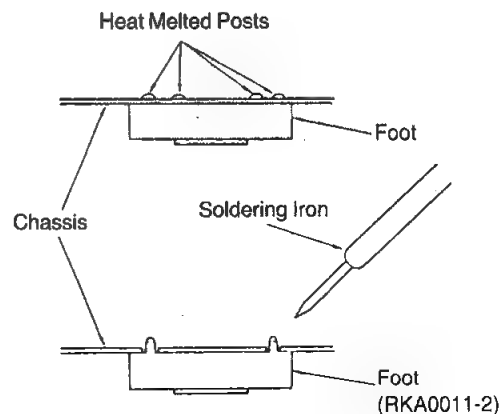
Ref. No. 12	Removal of the Power IC and Regulator Transistor	Ref. No. 13	Removal of the Power Transformer
Procedure 1→11→12	<ol style="list-style-type: none"> 1. Unsolder the power IC or regulator transistor. 2. Remove the 4 screws (①~④).  <p>Note: When mounting the power IC, or regulator transistor apply silicon terminal compound (SZZ0L15) to the rear of the power IC or regulator transistor.</p>	Procedure 1→13	 <ol style="list-style-type: none"> 1. Remove the 1 flat cable (J701). 2. Remove the 4 screws (①~④).
Ref. No. 14	Removal of the Fan Motor		
Procedure 1→8→14	 <ol style="list-style-type: none"> 1. Remove the 1 connector (J209). 2. Release the 3 claws. 		 <ol style="list-style-type: none"> 3. Insert a screwdriver at the root of the cooling fan. Force it out of the motor shaft. 4. Remove the motor cover by used ⊖ screwdriver. 5. Remove the motor from the fan casing. 6. When mounting the motor fan, align the fan casing's projection with the hole of the fan motor.

“ATTENTION SERVICER”

Some chassis components may have sharp edges. Be careful when disassembling and servicing.

●Replacement of the Foot.

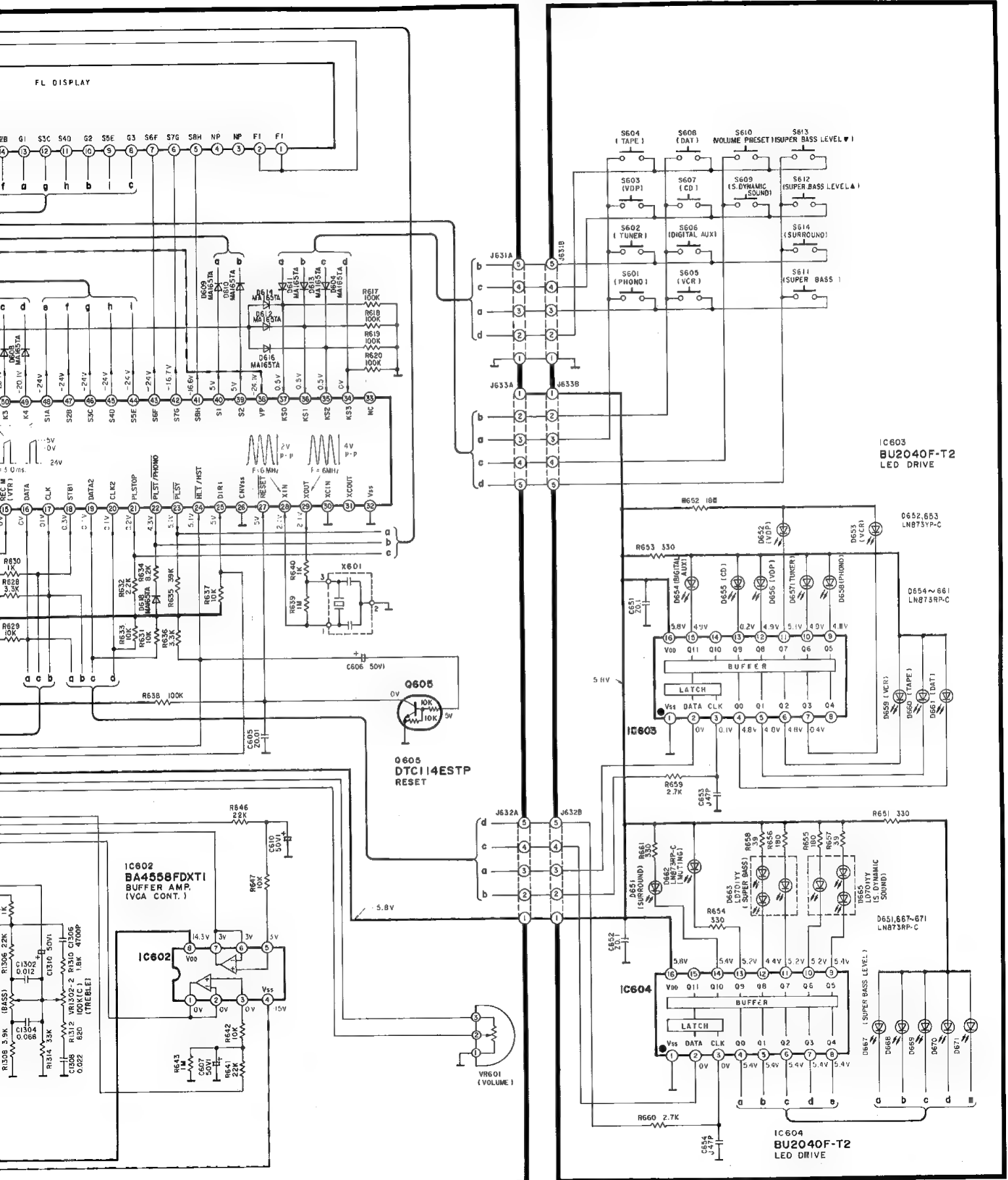
1. Remove the 4 heat melted posts on the chassis with a pair of nippers or similar tool.
2. To replace the foot (RKA0011-2) on the chassis, melt the 4 posts with a soldering iron.



A horizontal number line with tick marks at each integer from 1 to 6. The numbers 1, 2, 3, 4, 5, and 6 are written above their respective tick marks.

-13-

B OPERATION SWITCH CIRCUIT



©



11

IC901
MC14052BCP
VIDEO SELECTOR

IC901

SW CONT.

Q902
Q903
Q901

Q902,903
2SC331 1AQSTA
INTERFACE

Q901
2SA1309AQSTA
INTERFACE

14.3V

-15V

IC251
M5283P
ATTENUATOR
(ELECTRIC VOLUME)

IC252
BA4558FDMT1
BUFFER AMP

IC205
25C331 IAQSTA
REGULATOR

Q206
2SA1309AQSTA
REGULATOR

Q201, Q202
2SD2144STA
MUTING CONT.

PS590

D590
MA165TA

R201 47K
R202 150P
R203 47K
R204 500K
R205 3.3K
R206 1K
R207 1.8K
R208 1.8K
R209 1K
R210 1K
R211 820
R212 820
R213 6.2K
R214 8.2K
R215 1K
R216 1K
R217 1K
R218 1K
R219 150P
R220 150P
R221 3.9K
R222 3.9K
R223 100P
R224 100P
R225 47K
R226 1.8K
R227 1.8K
R228 100P
R229 100P
R230 1K
R231 1K
R232 15K
R233 18K
R234 18K
R235 15K
R236 18K
R237 15K
R238 15K
R239 15K
R240 15K
R241 15K
R242 15K
R243 15K
R244 15K
R245 15K
R246 15K
R247 15K
R248 15K
R249 10K
R250 15K
R251 15K
R252 15K
R253 15K
R254 15K
R255 15K
R256 15K

C201 100P
C202 100P
C203 100P
C204 100P
C205 100P
C206 100P
C207 100P
C208 100P
C209 100P
C210 100P
C211 100P
C212 100P
C213 100P
C214 100P
C215 100P
C216 100P
C217 100P
C218 100P
C219 100P
C220 100P
C221 100P
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C244 100P
C245 100P
C246 100P
C247 100P
C248 100P
C249 100P
C250 100P
C251 100P
C252 100P
C253 100P
C254 100P
C255 100P
C256 100P
C257 100P
C258 100P
C259 100P

Q201 0V
Q202 0V
Q205 14V
Q206 14V

J209B
1 a
2 b
3 c
4 d
5 e

J210B
1 a
2 b
3 c
4 d
5 e

J207B
1 a
2 b
3 c
4 d
5 e

J206B
1 a
2 b
3 c
4 d
5 e

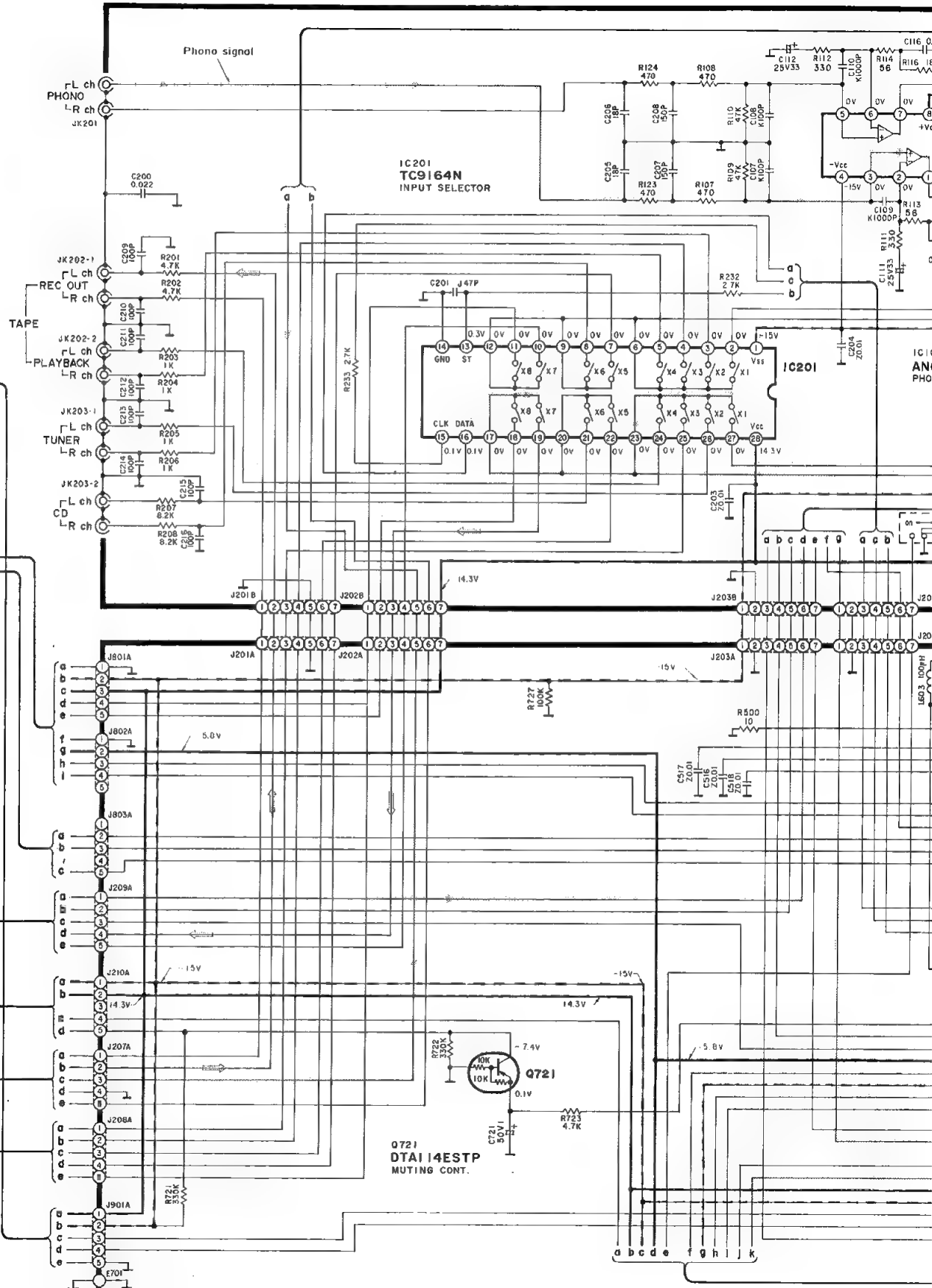
13

14

15

16

17

F PHONO/TAPE/TUNER/CD TERMINAL CIRCUIT**G** MAIN CIRCUIT

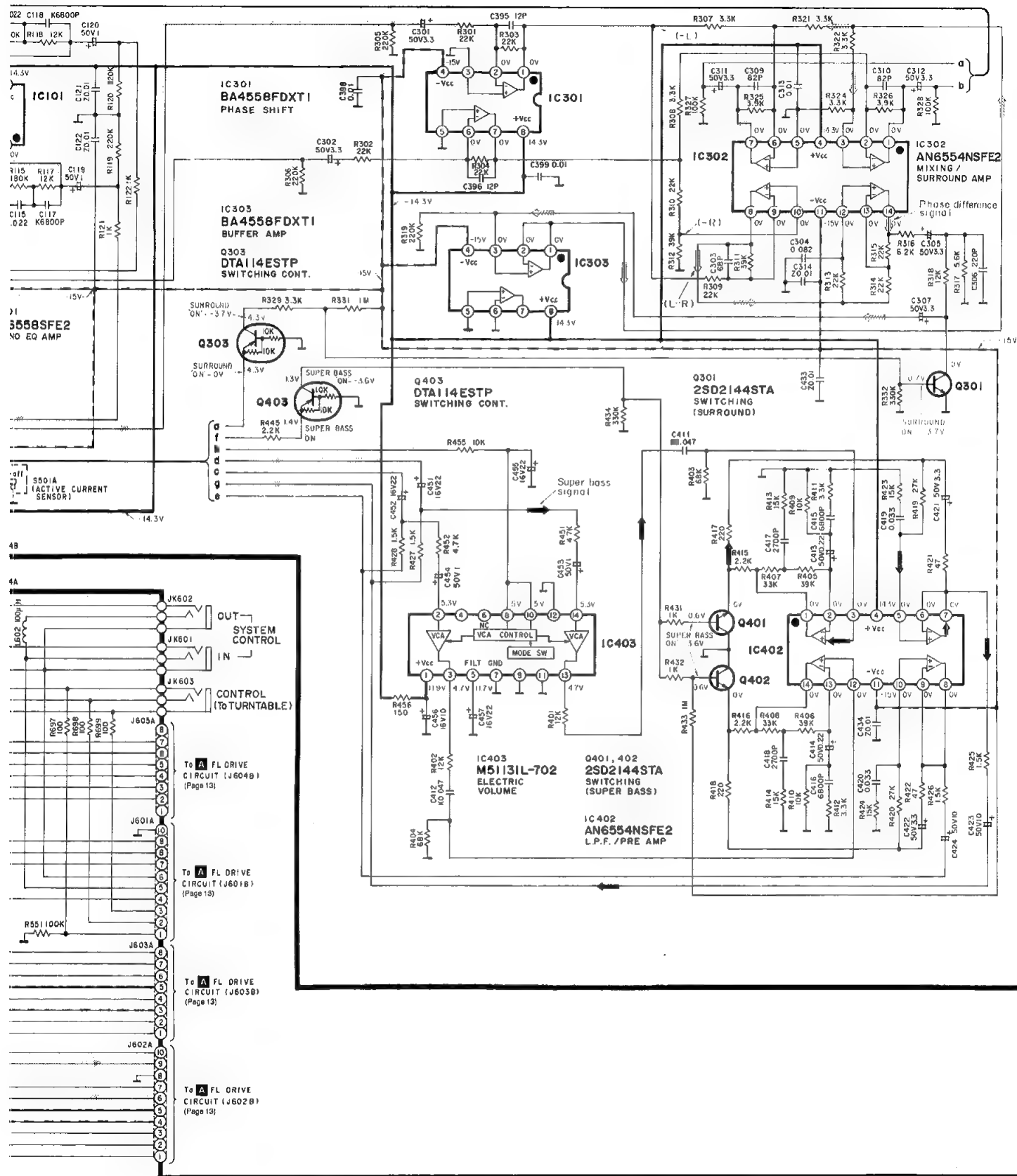
18

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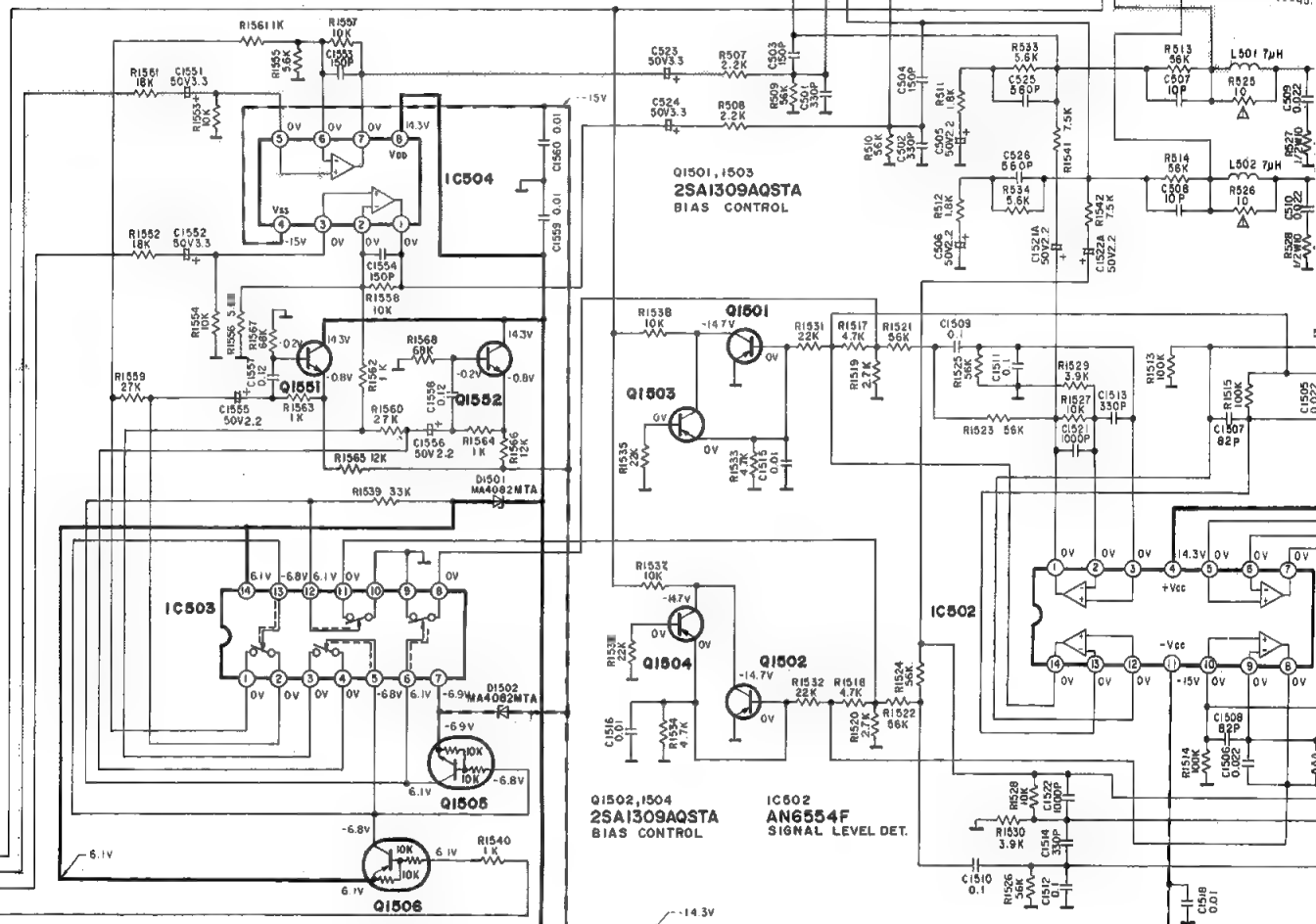
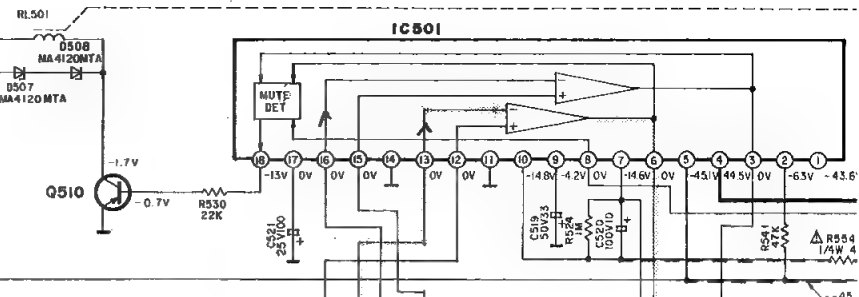
28

Q1551, 1552
2SC3312RSTA
CURRENT STABILIZER

IC501
SV13204
POWER AMP

Q510
2SA992EFPTA
RELAY DRIVE

IC504
M5218AP
BUFFER AMP



IC503
TC4066B
SWITCHING

Q1505
DTC114ESTP
A.C.S. CONTROL

Q1506
DTA114ESTP
A.C.S. CONTROL

Q702
2SB621AQRSTA
REGULATOR

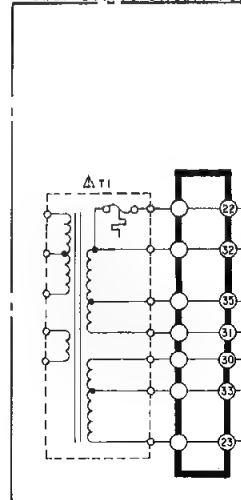
Q705
2SD1761DEF
REGULATOR

Q701
UN4215TA
STABILIZER

Q703
2SD1761DEF
REGULATOR

Q704
2SB1187DEF
REGULATOR

H



DESCRIPTION OF FL PANEL

Notes: (This schematic diagram may be modified at any time with the development of new technology.)

- S501A : Active current sensor switch in "OFF" position.
- S501 : Speaker ON/OFF switch.
(S501-1: SPEAKER A in "ON" position)
(S501-2: SPEAKER B in "OFF" position)
- S601 : Turntable input switch. (PHONO)
- S602 : Tuner input switch. (TUNER)
- S603 : Video disc player input switch. (VDP)
- S604 : Tape deck input switch. (TAPE)
- S605 : Video cassette recorder input switch. (VCR)
- S606 : Digital AUX input switch. (DIGITAL AUX)
- S607 : CD input switch. (CD)
- S608 : Digital audio tape deck input switch. (DAT)
- S609 : Super dynamic sound switch. (S. DYNAMIC SOUND)
- S610 : Volume preset switch. (VOLUME PRESET)
- S611 : Super bass switch. (SUPER BASS)
- S612 : Super bass level control switch. (SUPER BASS LEVEL ▲)
- S613 : Super bass level control switch. (SUPER BASS LEVEL ▼)
- S614 : Surround-sound switch. (SURROUND)
- S701 : Power switch. (POWER)

~~~~~ CD signal (Lch), Phono signal (Lch)

———— Positive voltage lines (+)

----- Negative voltage lines (-)

→ Super bass signal

→ Phase difference signal

→ Recording signal

• Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

• Important safety notice:

Components identified by ▲ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

### •Caution!

IC and LSI are sensitive to static electricity.

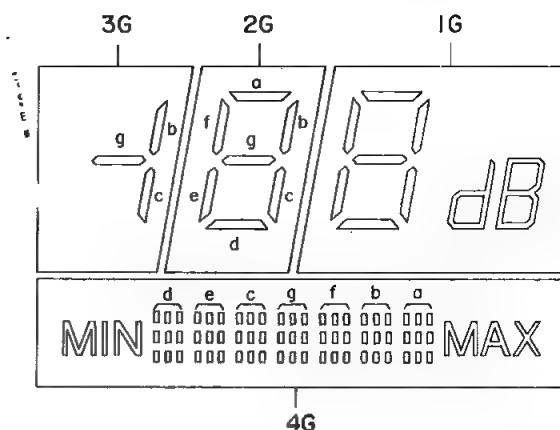
Secondary trouble can be prevented by taking care during repair.

• Cover the parts boxes made of plastics with aluminum foil.

• Ground the soldering iron.

• Put a conductive mat on the work table.

• Do not touch the legs of IC or LSI with the fingers directly.



|    | 4G      | 3G | 2G | 1G |
|----|---------|----|----|----|
| P1 | a       | —  | a  | a  |
| P2 | b       | b  | b  | b  |
| P3 | c       | c  | c  | c  |
| P4 | d       | —  | d  | d  |
| P5 | e       | —  | e  | e  |
| P6 | f       | —  | f  | f  |
| P7 | g       | g  | g  | g  |
| P8 | MIN MAX | —  | —  | dB |

### PIN CONNECTION

| PIN NO.    | 9  | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|------------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONNECTION | FF | N | 4 | P | P | 3 | P | P | 2 | P | 1 | P | P | N | N | F | F | F | F |

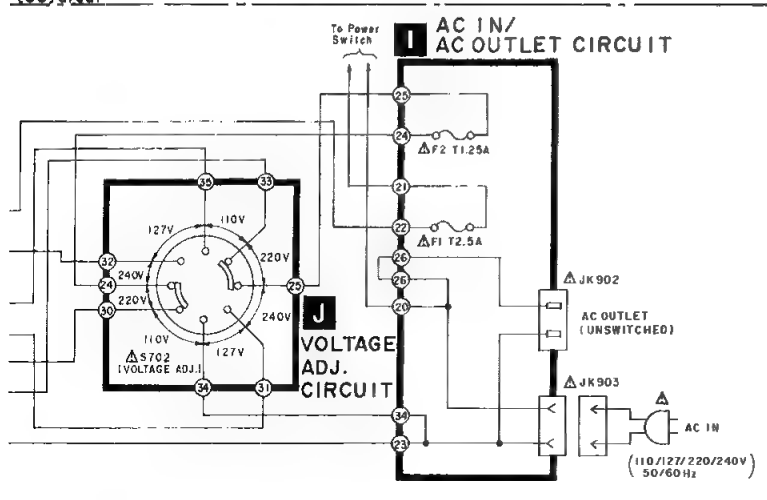
### Notes:

F1, F2 ..... Filament

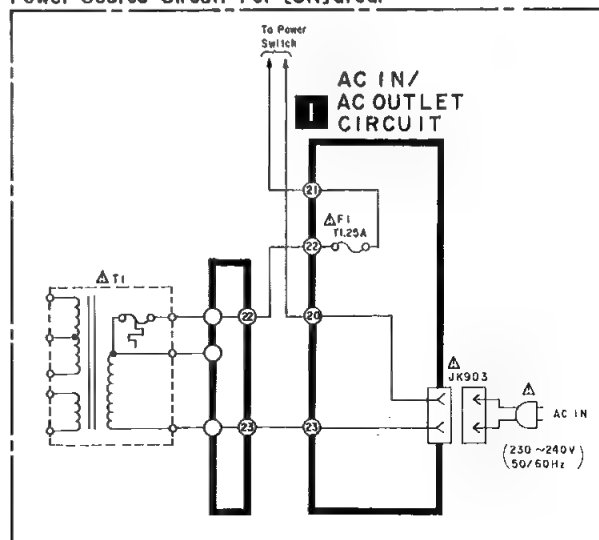
NP ..... No pin

1G~4G..... Grid

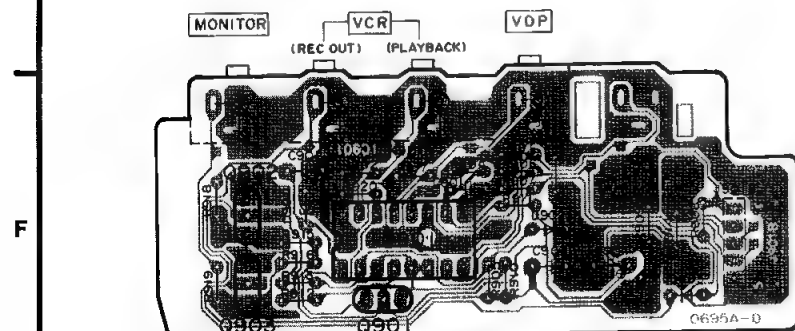
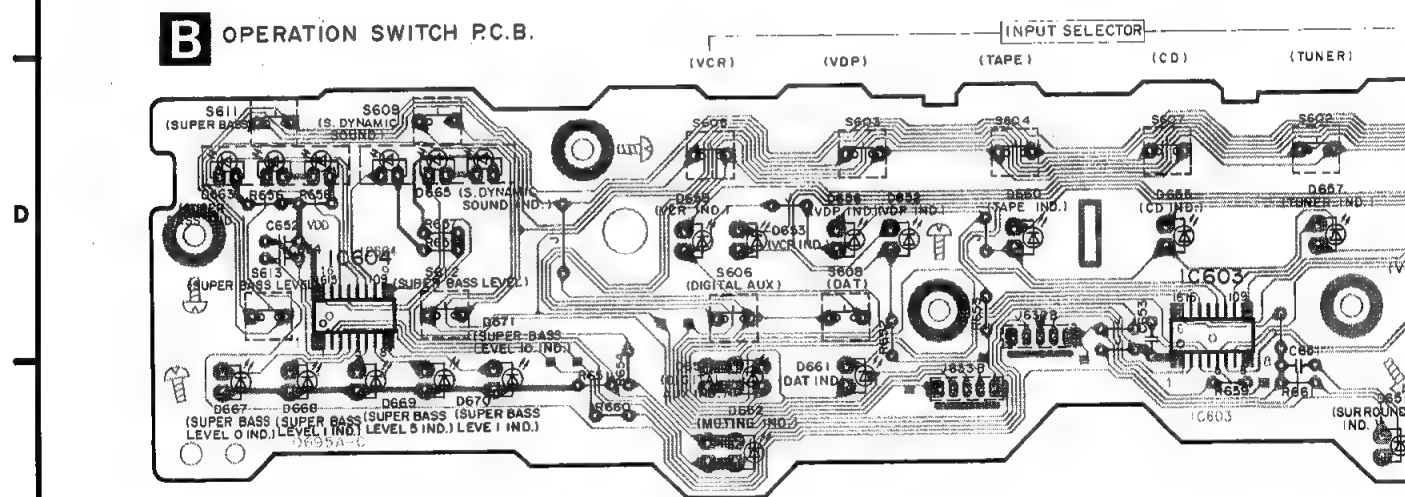
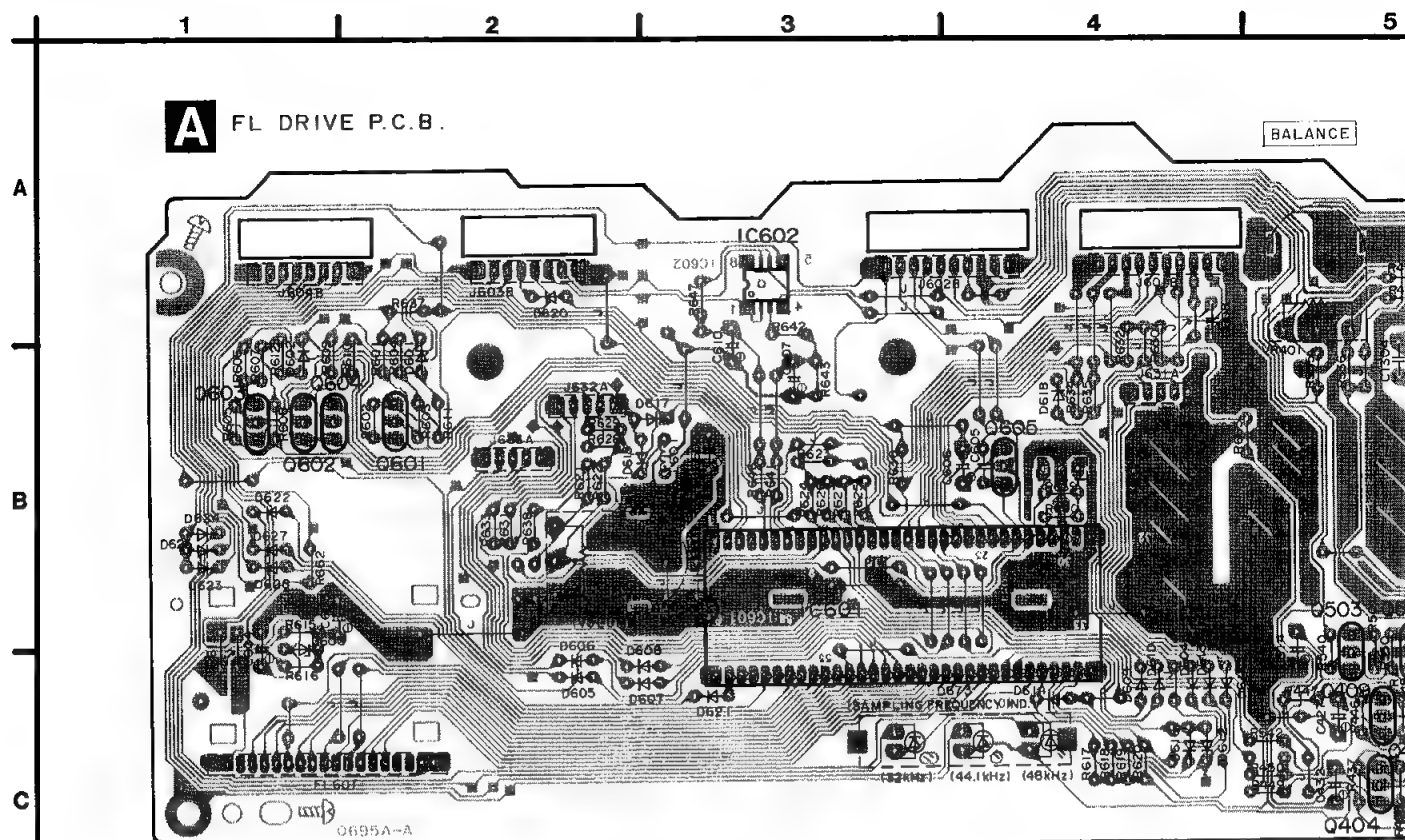
[GC] grad.



### Power Source Circuit For [GN] area.



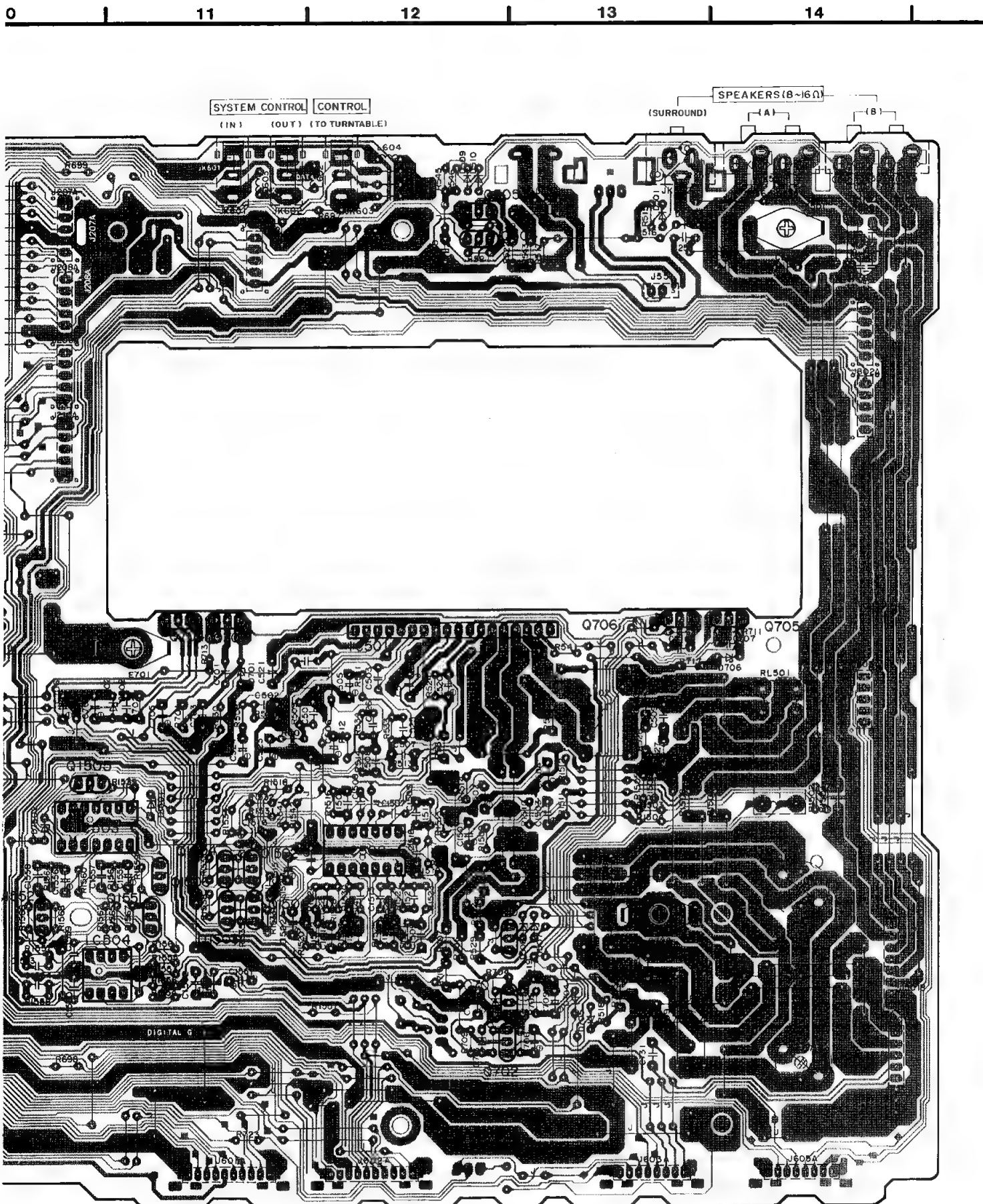
## ■ CIRCUIT BOARD DIAGRAM

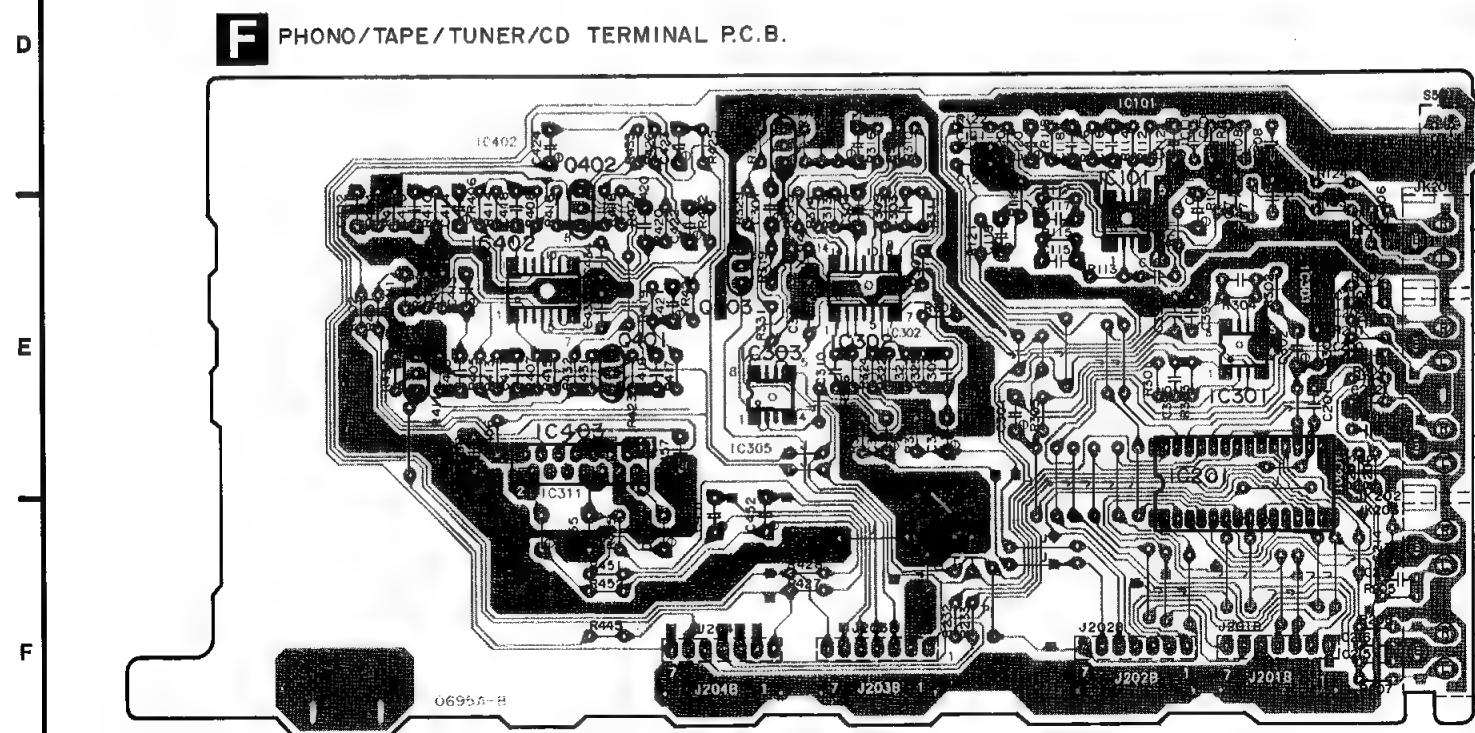


**D** VIDEO IN/OUT  
TERMINAL P.C.B.









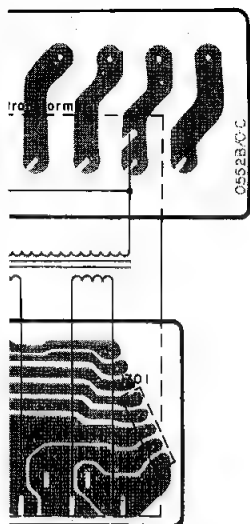
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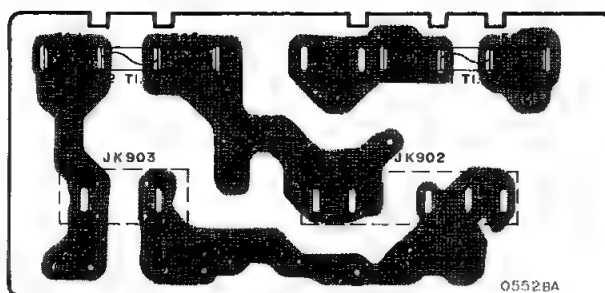
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10



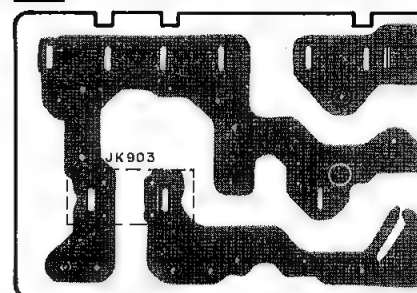
# **I** AC IN/AC OUTLET P.C.B. FOR [E, EB, EG] AREAS.



**AC IN**  
(230V.....[E, EB]  
230~240V.....[EB]  
50/60Hz)

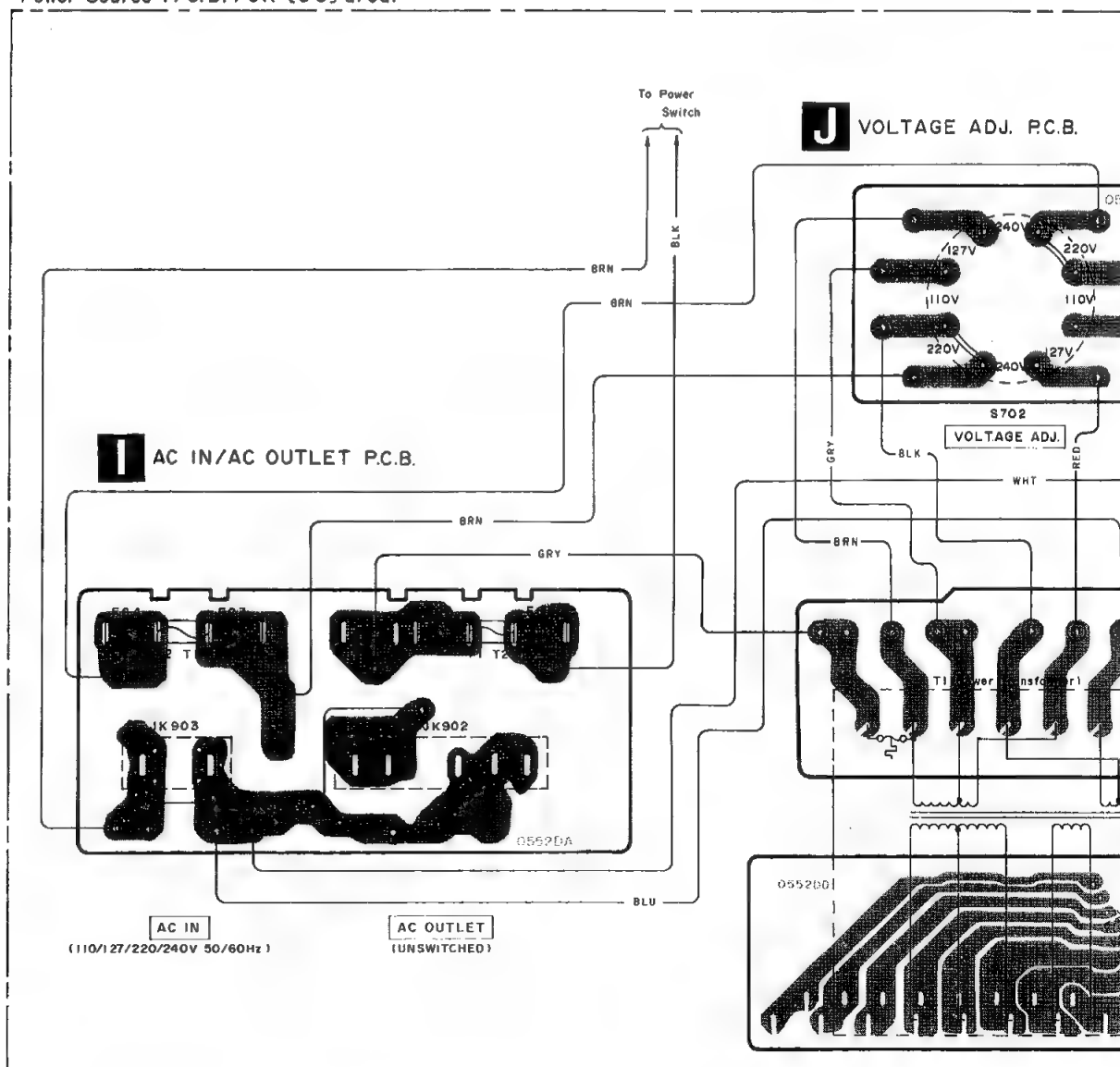
**AC OUTLET**  
(UNSWITCHED)

# **I** AC IN/AC OUTLET P.C.B. FOR [G] AREAS.



**AC IN**  
(230~240V 50/60Hz)

## Power Source P.C.B. FOR [G C] area.



**ACTIVE CURRENT SENSOR**

**PHONO**

(REC OUT)

**TAPE**

(PLAYBACK)

**TUNER**

**CD**

11

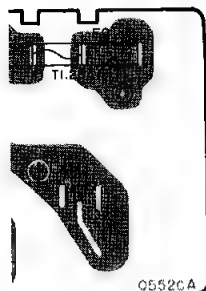
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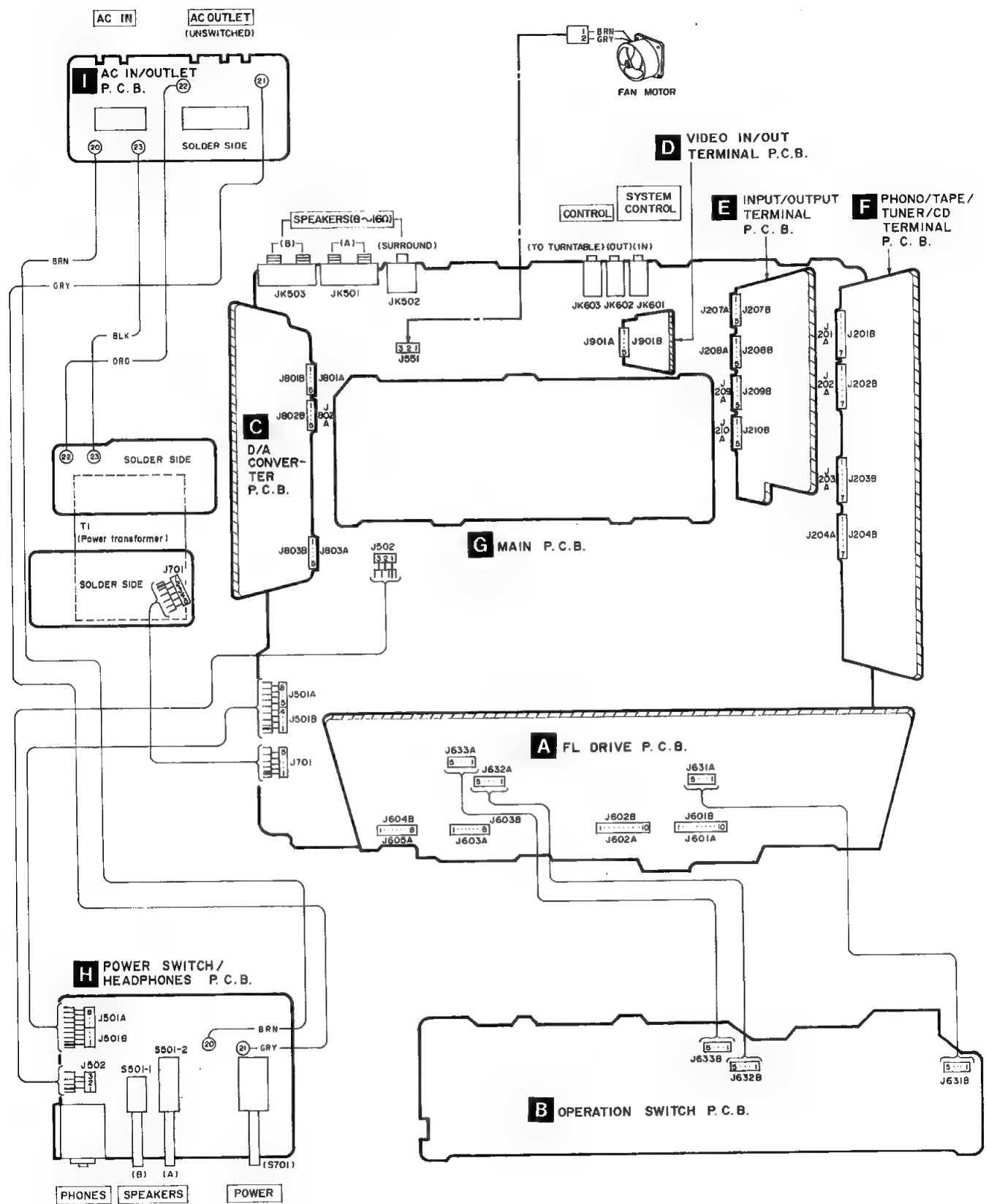
# ■ TERMINAL GUIDE OF IC'S, TRANSISTORS AND DIODES

N) AREA.



|                                                                      |                                                                              |                                                                                                           |                                                                       |                                                                                  |
|----------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>AN6558SFE2</b><br>                                                | <b>BA4558FDXT1</b><br><b>BA4560FT1</b><br>                                   | <b>AN6554NSFE2</b><br>                                                                                    | <b>BU2040F-T2</b><br><b>MC74HCU04FEL</b><br>                          | <b>PCM1700U-T1</b><br>                                                           |
| <b>M5218AP</b><br>                                                   | <b>AN6554F</b><br>                                                           | <b>TC4066B</b><br>                                                                                        | <b>M5283P</b><br>                                                     | <b>MC14052BCP</b><br>                                                            |
| <b>TC9164N</b><br>                                                   | <b>PD0052</b><br>                                                            | <b>M50754-180SP</b><br>                                                                                   | <b>M51131L-702</b><br>                                                | <b>SVI3204</b><br>                                                               |
| <b>GP1F32R</b><br>                                                   |                                                                              | <b>2SA1309AQSTA</b><br><b>2SC3311AQSTA</b><br><b>2SC3312RSTA</b><br><b>2SD1450STTA</b><br><b>UN4215TA</b> |                                                                       | <b>2SD2144STA</b><br><b>DTA114ESTP</b><br><b>DTC114ESTP</b><br><b>DTC144ESTP</b> |
| <b>2SA992EFPTA</b><br><b>2SB621AQRSTA</b><br><b>2SC3114STUTA</b><br> | <b>2SB1187DEF</b><br><b>2SD1761DEF</b><br>                                   |                                                                                                           | <b>MA165TA</b><br><b>MA167TA</b><br><b>MA700TA</b><br><b>1SS291TA</b> | <b>P300DLF</b><br>                                                               |
|                                                                      | <b>MA4043MTA</b><br><b>MA4047MTA</b><br><b>MA4051LTA</b><br><b>MA4051MTA</b> |                                                                                                           | <b>MA4120MTA</b><br><b>MA4150MTA</b>                                  | <b>LN473YP-C</b><br><b>LN873RP-C</b><br>                                         |
|                                                                      | <b>LD701YY</b>                                                               |                                                                                                           | <b>LN038568PH</b>                                                     |                                                                                  |

# WIRING CONNECTION DIAGRAM





## ■ FUNCTION OF IC TERMINALS

### ●IC601

| Pin No. | Symbol         | I/O | Function Description                                                                                           |
|---------|----------------|-----|----------------------------------------------------------------------------------------------------------------|
| 1       | VDD            | I   | +5 V                                                                                                           |
| 2       | B. DATA OUT    | O   | Bus data signal out                                                                                            |
| 3       | B. CLK OUT     | O   | Bus clock signal out                                                                                           |
| 5       | S. BASS PWM    | O   | Super bass control signal output                                                                               |
| 6       | VR PWM         | O   | Volume control signal output                                                                                   |
| 7       | B. DATA IN     | I   | Bus data signal input                                                                                          |
| 8       | B. CLK IN      | I   | Bus clock signal input                                                                                         |
| 9       | VRA            | I   | Rotary encoder (VR601) signal input (Volume control)                                                           |
| 10      | VRB            |     |                                                                                                                |
| 11<br>} | MUT3<br>}      | O   | Muting control signal output                                                                                   |
| 13      | MUT1           |     |                                                                                                                |
| 15      | REC M          | O   | Muting control signal output for VTR recording                                                                 |
| 16      | DATA           | O   | Data signal output                                                                                             |
| 17      | CLK            | O   | Clock signal output                                                                                            |
| 18      | STB1           | O   | The serial data inputted in to IC201 is latched by the STB pulse and the switch is set to ON according to data |
| 19      | DATA2          | O   | LED control signal output                                                                                      |
| 20      | CLK2           | O   | Clock output for IC604                                                                                         |
| 21      | PLSTOP         | O   | Player control signal output                                                                                   |
| 22      | PLST/<br>PHONO |     |                                                                                                                |
| 23      | PSAY           |     |                                                                                                                |
| 24      | HLT/HST        | I   | Power supply detect signal input                                                                               |

| Pin No. | Symbol     | I/O | Function Description                   |
|---------|------------|-----|----------------------------------------|
| 25      | DIR1       | I   | Sampling frequency detect signal input |
| 26      | CNVSS      | —   | GND                                    |
| 27      | RESET      | I   | Reset signal input                     |
| 28      | X IN       | I   | Clock signal input                     |
| 29      | X OUT      | O   | Clock signal output                    |
| 32      | VSS        | —   | GND                                    |
| 34<br>} | KS3<br>}   | I   | Key scan signal input                  |
| 37      | KS0        |     |                                        |
| 38      | VP         | I   | Pull down voltage detect signal input  |
| 39      | S2         | O   | Input select control signal output     |
| 40      | S1         |     |                                        |
| 41<br>} | S8<br>}    | O   | FL drive signal output                 |
| 48      | S1         |     |                                        |
| 49<br>} | K4<br>}    |     |                                        |
| 52      | K1         |     |                                        |
| 53<br>} | G4<br>}    | O   | LED control signal output              |
| 56      | G1         |     |                                        |
| 57      | SEL2       | O   | LED control signal output              |
| 58      | SEL1       |     |                                        |
| 60      | S. BASS. D | O   | Super bass control signal output       |
| 63      | SURR. D    | O   | Surround control signal output         |

### ●IC805

| Pin No. | Symbol | I/O | Function Description |
|---------|--------|-----|----------------------|
| 1       | X IN   | I   | Clock signal input   |
| 2       | X OUT  | O   | Clock signal output  |
| 3       | MODE1  | I   | Master clock input   |
| 4       | CK OUT | —   | NC                   |
| 5       | LR CLK | I   | LR clock input       |
| 6       | DATA   | I   | Serial data input    |
| 7       | BCK    | I   | Bit clock input      |
| 8       | VSS    | —   | GND                  |

| Pin No. | Symbol | I/O    | Function Description                                                                                                                                                                                                                  |       |       |             |   |   |        |  |   |        |   |   |        |
|---------|--------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------------|---|---|--------|--|---|--------|---|---|--------|
| 9       | MODE2  | I      | Select the output data<br><table><tr><th>MODE3</th><th>MODE2</th><th>OUTPUT DATA</th></tr><tr><td>H</td><td>H</td><td>18 bit</td></tr><tr><td></td><td>L</td><td>16 bit</td></tr><tr><td>L</td><td>—</td><td>20 bit</td></tr></table> | MODE3 | MODE2 | OUTPUT DATA | H | H | 18 bit |  | L | 16 bit | L | — | 20 bit |
| MODE3   | MODE2  |        | OUTPUT DATA                                                                                                                                                                                                                           |       |       |             |   |   |        |  |   |        |   |   |        |
| H       | H      |        | 18 bit                                                                                                                                                                                                                                |       |       |             |   |   |        |  |   |        |   |   |        |
|         | L      | 16 bit |                                                                                                                                                                                                                                       |       |       |             |   |   |        |  |   |        |   |   |        |
| L       | —      | 20 bit |                                                                                                                                                                                                                                       |       |       |             |   |   |        |  |   |        |   |   |        |
| 13      | MODE3  |        |                                                                                                                                                                                                                                       |       |       |             |   |   |        |  |   |        |   |   |        |
| 10      | SHOUT  | —      | NC                                                                                                                                                                                                                                    |       |       |             |   |   |        |  |   |        |   |   |        |
| 11      | LD OUT | O      | Lch signal output                                                                                                                                                                                                                     |       |       |             |   |   |        |  |   |        |   |   |        |
| 12      | RD OUT | O      | Rch signal output                                                                                                                                                                                                                     |       |       |             |   |   |        |  |   |        |   |   |        |
| 14      | W OUT  | O      | Ward clock output                                                                                                                                                                                                                     |       |       |             |   |   |        |  |   |        |   |   |        |
| 15      | B OUT  | O      | Bit clock output                                                                                                                                                                                                                      |       |       |             |   |   |        |  |   |        |   |   |        |
| 16      | VDD    | I      | To be connected to a power supply (+5 V)                                                                                                                                                                                              |       |       |             |   |   |        |  |   |        |   |   |        |



## ●IC803

| Pin No. | Symbol | I/O | Function Description                 |
|---------|--------|-----|--------------------------------------|
| 1       | IN1    | I   | Digital audio interface signal input |
| 2       | IN2    |     |                                      |
| 3       | IN3    |     |                                      |
| 4       | S1     | I   | Input select 1                       |
| 5       | S2     | I   | Input select 2                       |
| 6       | OUT    | O   | Input data select signal out         |
| 7       | TEST   | I   | —— (VDD)                             |
| 8       | RESET  | I   | Reset signal input                   |
| 9       | VCOINH | I   | VCO control signal input             |
| 10      | VSS    | —   | Digital ground                       |
| 11      | PCVS   | I   | VCO control signal input             |
| 12      | PCOUT  | O   | Phase comparative output             |
| 13      | R      | —   | VCO adjustment (Resistor)            |
| 14      | VCO IN | I   | VCO control signal input             |
| 15      | VDD1   | I   | VCO VDD                              |

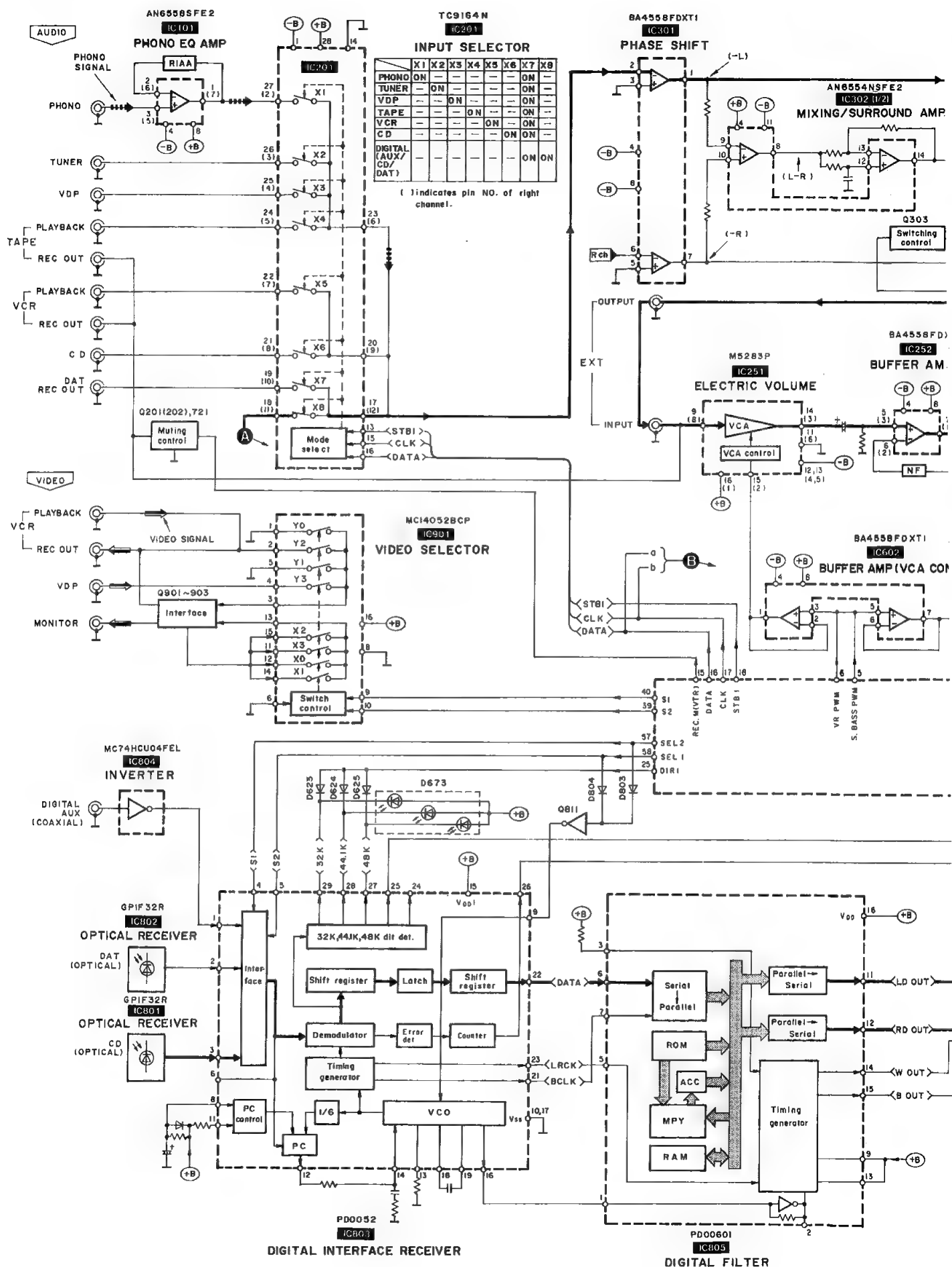
| Pin No. | Symbol  | I/O | Function Description                                   |
|---------|---------|-----|--------------------------------------------------------|
| 16      | VCO OUT | O   | VCO output                                             |
| 17      | VSS1    | —   | VCO ground                                             |
| 18      | CA      | —   | VCO adjustment (Capacitor)                             |
| 19      | CB      | —   | VCO adjustment (Capacitor)                             |
| 20      | MODE    | —   | L: 16 bit H: 20 bit                                    |
| 21      | BCK     | O   | Data bit clock output                                  |
| 22      | DATA    | O   | Audio data output                                      |
| 23      | LRCK    | O   | Lch/Rch data output (H: Lch)                           |
| 24      | COPY    | —   | ——                                                     |
| 25      | EMPH    | O   | Emphasis data output                                   |
| 26      | ERR     | O   | PLL data error output (H: error)                       |
| 27      | 48K     | O   | Sampling frequency data output LED drive signal output |
| 28      | 44.1K   |     |                                                        |
| 29      | 32K     |     |                                                        |
| 30      | VDD     | I   | Digital VDD                                            |

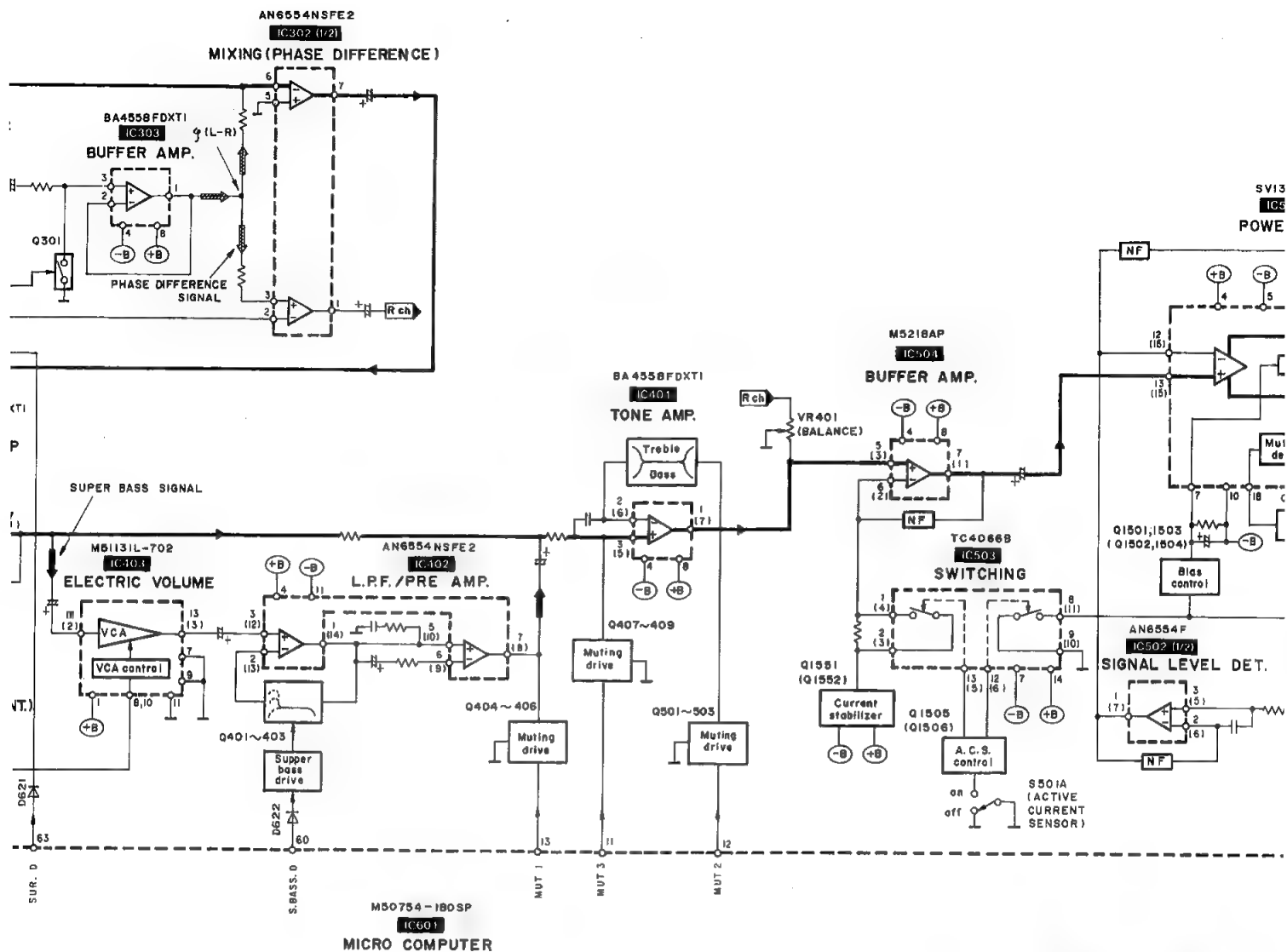
## ●IC806

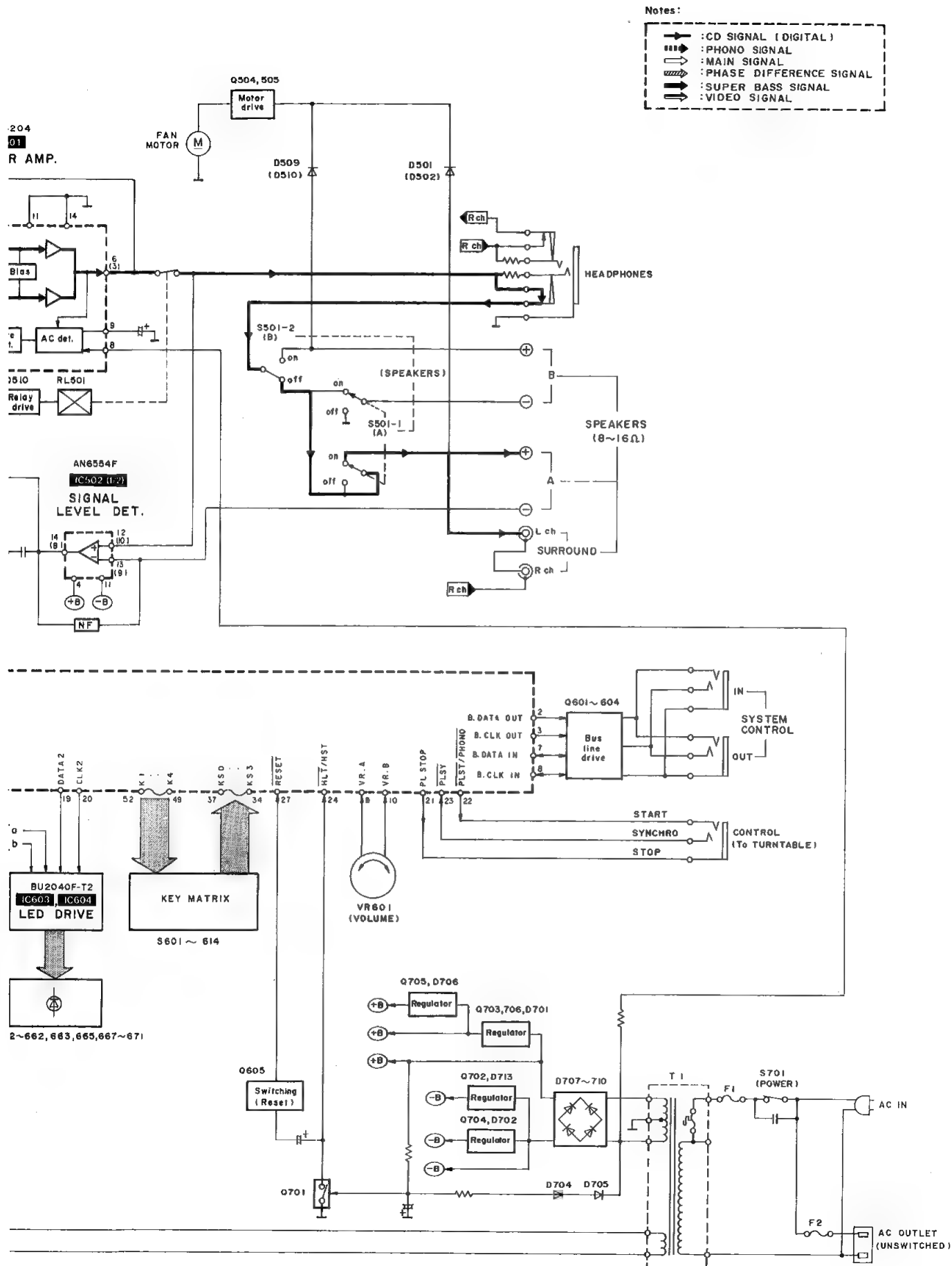
| Pin No. | Symbol       | I/O | Function Description   |
|---------|--------------|-----|------------------------|
| 1       | A. GND       | —   | Analog ground          |
| 2       | I OUT (R)    | O   | Current output (Rch)   |
| 3       | BPO DC (R)   | I   | Offset filter (Rch)    |
| 4       | MSB ADJ (R)  | —   | ——                     |
| 5       | SERVO DC (R) | I   | Servo filter (Rch)     |
| 6       | V POT        | —   | ——                     |
| 7       | VCC          | I   | Analog positive supply |
| 8       | D. GND       | —   | Digital ground         |
| 9       | —VCC         | I   | Analog negative supply |
| 10      | SERVO DC (L) | I   | Servo filter (Lch)     |
| 11      | MSB ADJ (L)  | —   | ——                     |
| 12      | BPO DC (L)   | I   | Offset filter (Lch)    |
| 13      | I OUT (L)    | O   | Current output (Lch)   |
| 14      | A. GND       | —   | Analog ground          |

| Pin No. | Symbol    | I/O | Function Description       |
|---------|-----------|-----|----------------------------|
| 15      | S. J (L)  | I   | Summing junction (Lch)     |
| 16      | V OUT (L) | O   | Voltage output (Lch)       |
| 17      | NC        | —   | ——                         |
| 18      | VDD       | I   | Digital positive supply    |
| 19      | NC        | —   | ——                         |
| 20      | DATA (L)  | I   | Data input (Lch)           |
| 21      | CLOCK     | I   | Clock input                |
| 22      | —VDD      | I   | Digital negative supply    |
| 23      | LEC       | I   | Latch enable control input |
| 24      | DATA (R)  | I   | Data input (Rch)           |
| 25      | D. GND    | —   | Digital ground             |
| 26      | NC        | —   | ——                         |
| 27      | V OUT (R) | O   | Voltage output (Rch)       |
| 28      | S. J (R)  | I   | Summing junction (Rch)     |

## ■ BLOCK DIAGRAM







# REPLACEMENT PARTS LIST

**Notes : \* Important safety notice:**

Components identified by  $\Delta$  mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.

\* The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)  
Parts without these indications can be used for all areas.

| Ref. No.   | Part No.     | Part Name & Description   | Remarks | Ref. No.    | Part No.     | Part Name & Description | Remarks |
|------------|--------------|---------------------------|---------|-------------|--------------|-------------------------|---------|
|            |              | INTEGRATED CIRCUIT(S)     |         | Q603        | 2SC3311A-Q   | TRANSISTOR              |         |
|            |              |                           |         | Q604        | DTC144EKT96  | TRANSISTOR              |         |
|            |              |                           |         | Q605        | DTC114ESTP   | TRANSISTOR              |         |
| IC101      | AN6558SFE2   | I. C, PHONO EQ AMP        |         | Q701        | UN4215       | TRANSISTOR              |         |
| IC201      | TC9164N      | I. C, INPUT SELECTOR      |         | Q702        | 2SB621A-R    | TRANSISTOR              |         |
| IC251      | M5283P       | I. C, ATTENUATOR          |         | Q703        | 2SD1761DEF   | TRANSISTOR              |         |
| IC252      | BA4558FDXT1  | I. C, BUFFER AMP          |         | Q704        | 2SB1187DEF   | TRANSISTOR              |         |
| IC301      | BA4558FDXT1  | I. C, PHASE SHIFT         |         | Q705, 706   | 2SD1761DEF   | TRANSISTOR              |         |
| IC302      | AN6554NSFE2  | I. C, MIXING/SURROUND AMP |         | Q721        | DTA114ESTP   | TRANSISTOR              |         |
| IC303      | BA4558FDXT1  | I. C, BUFFER AMP          |         | Q802, 803   | DTC114ESTP   | TRANSISTOR              |         |
| IC401      | BA4558FDXT1  | I. C, TONE AMP            |         | Q804        | DTA114ESTP   | TRANSISTOR              |         |
| IC402      | AN6554NSFE2  | I. C, L. P. F/PRE AMP     |         | Q805, 806   | 2SC3114STUTA | TRANSISTOR              |         |
| IC403      | M51131L-702  | I. C, ELECTRIC VOLUME     |         | Q807, 808   | 2SD2144S     | TRANSISTOR              |         |
| IC501      | SV13204      | I. C, POWER AMP           |         | Q809        | DTA114ESTP   | TRANSISTOR              |         |
| IC502      | AN6554F      | I. C, SIGNAL LEVEL DET.   |         | Q810        | 2SC3311A-Q   | TRANSISTOR              |         |
| IC503      | TC4066B      | I. C, SWITCHING           |         | Q811        | DTC114ESTP   | TRANSISTOR              |         |
| IC504      | M5218AP      | I. C, BUFFER AMP          |         | Q901        | 2SA1309A-R   | TRANSISTOR              |         |
| IC601      | M50754-180SP | I. C, MICRO COMPUTER      |         | Q902, 903   | 2SC3311A-Q   | TRANSISTOR              |         |
| IC602      | BA4558FDXT1  | I. C, BUFFER AMP          |         | Q1501-1504  | 2SA1309A-R   | TRANSISTOR              |         |
| IC603, 604 | BU2040F-T2   | I. C, LED DRIVE           |         | Q1505       | DTC114ESTP   | TRANSISTOR              |         |
| IC801, 802 | GP1F32R      | I. C, OPTICAL RECEIVER    |         | Q1506       | DTA114ESTP   | TRANSISTOR              |         |
| IC803      | PD0052       | I. C, DIGITAL INTERFACE   |         | Q1551, 1552 | 2SC3312RSTA  | TRANSISTOR              |         |
| IC804      | MC74HCU04FEL | I. C, INVERTER            |         |             |              |                         |         |
| IC805      | PD00601      | I. C, DIGITAL FILTER      |         |             |              | DIODE (S)               |         |
| IC806      | PCM1700U-T1  | I. C, D/A CONVERTER       |         |             |              |                         |         |
| IC811      | SV1BA4560FT1 | I. C, BUFFER AMP          |         | D501, 502   | MA167        | DIODE                   |         |
| IC901      | MC14052BCP   | I. C, VIDEO SELECTOR      |         | D504        | MA4051MTA    | DIODE                   |         |
|            |              | TRANSISTOR(S)             |         | D507, 508   | MA4120       | DIODE                   |         |
|            |              |                           |         | D509, 510   | MA167        | DIODE                   |         |
|            |              |                           |         | D590        | MA165        | DIODE                   |         |
| Q201, 202  | 2SD2144S     | TRANSISTOR                |         | D601, 602   | MA700        | DIODE                   |         |
| Q205       | 2SC3311A-Q   | TRANSISTOR                |         | D603        | MA4047MTA    | DIODE                   |         |
| Q206       | 2SA1309A-R   | TRANSISTOR                |         | D604-614    | MA165        | DIODE                   |         |
| Q301       | 2SD2144S     | TRANSISTOR                |         | D615        | 1SS291TA     | DIODE                   |         |
| Q303       | DTA114ESTP   | TRANSISTOR                |         | D616-618    | MA165        | DIODE                   |         |
| Q401, 402  | 2SD2144S     | TRANSISTOR                |         | D620-625    | MA165        | DIODE                   |         |
| Q403       | DTA114ESTP   | TRANSISTOR                |         | D627, 628   | MA165        | DIODE                   |         |
| Q404       | DTA114ESTP   | TRANSISTOR                |         | D651        | LN873RP-C    | LED                     |         |
| Q405-408   | 2SD2144S     | TRANSISTOR                |         | D652, 653   | LN473YP-C    | LED                     |         |
| Q409       | 2SA1309A-R   | TRANSISTOR                |         | D654-662    | LN873RP-C    | LED                     |         |
| Q501, 502  | 2SD1450STTA  | TRANSISTOR                |         | D663        | LD701YY      | DIODE                   |         |
| Q503       | 2SA1309A-R   | TRANSISTOR                |         | D665        | LD701YY      | DIODE                   |         |
| Q504       | 2SC3311A-Q   | TRANSISTOR                |         | D667-671    | LN873RP-C    | LED                     |         |
| Q505       | 2SA1309A-R   | TRANSISTOR                |         | D673        | LN038568PH   | LED                     |         |
| Q510       | 2SA992EFPTA  | TRANSISTOR                |         | D701, 702   | MA4150M      | DIODE                   |         |
| Q601       | 2SC3311A-Q   | TRANSISTOR                |         | D703        | MA165        | DIODE                   |         |
| Q602       | DTC144EKT96  | TRANSISTOR                |         | D704, 705   | MA167        | DIODE                   |         |

| Ref. No.    | Part No.     | Part Name & Description  | Remarks  | Ref. No. | Part No.     | Part Name & Description   | Remarks         |
|-------------|--------------|--------------------------|----------|----------|--------------|---------------------------|-----------------|
| D706        | MA4062-H     | DIODE                    |          |          |              |                           |                 |
| D707-710△   | P300DLF      | DIODE                    |          |          |              | DISPLAY TUBE              |                 |
| D713        | MA4240H      | DIODE                    |          |          |              |                           |                 |
| D801        | MA165        | DIODE                    |          | FL601    | RSLO074-F    | DISPLAY TUBE              |                 |
| D803, 804   | MA165        | DIODE                    |          |          |              |                           |                 |
| D809        | MA4051-L     | DIODE                    |          |          |              | FUSE(S)                   |                 |
| D810        | MA4043M      | DIODE                    |          |          |              |                           |                 |
| D901        | MA4047MTA    | DIODE                    |          | F1 △     | XBA2C12TB0S  | FUSE                      | (E, EB, EG, GC) |
| D902, 903   | MA165        | DIODE                    |          | F1 △     | XBA2C25TB0   | FUSE                      | (GC)            |
| D1501, 1502 | MA4082MTA    | DIODE                    |          | F2 △     | XBA2C12TB0S  | FUSE                      | (E, EB, EG, GC) |
|             |              |                          |          |          |              |                           |                 |
|             |              | VARIABLE RESISTOR(S)     |          |          |              | SWITCH(ES)                |                 |
|             |              |                          |          |          |              |                           |                 |
| VR401       | EWHFDAF20G15 | V. R, BALANCE            |          | S501A    | RSS2B006-M   | SW, ACTIVE CURRENT SENSOR |                 |
| VR601       | EVQWQAF2524B | V. R, VOLUME             |          | S501     | SSH2128      | SW, SPEAKER ON/OFF        |                 |
| VR1301      | EW2XAF20C15  | V. R, BASS               |          | S601     | EVQ21405R    | SW, PHONO                 |                 |
| VR1302      | EW2XAF20C15  | V. R, TREBLE             |          | S602     | EVQ21405R    | SW, TUNER                 |                 |
|             |              |                          |          | S603     | EVQ21405R    | SW, VDP                   |                 |
|             |              | POSISTOR(S)              |          | S604     | EVQ21405R    | SW, TAPE                  |                 |
|             |              |                          |          | S605     | EVQ21405R    | SW, VCR                   |                 |
| PS590       | SRPBD47101   | POSISTOR                 |          | S606     | EVQ21405R    | SW, DIGITAL AUX           |                 |
|             |              |                          |          | S607     | EVQ21405R    | SW, CD                    |                 |
|             |              | COMPONENT COMBINATION(S) |          | S608     | EVQ21405R    | SW, DAT                   |                 |
|             |              |                          |          | S609     | EVQ21405R    | SW, S. DYNAMIC SOUND      |                 |
| Z801, 802   | H8DN2041B    | COMPONENT COMBINATION    |          | S610     | EVQ21405R    | SW, VOLUME PRESET         |                 |
|             |              |                          |          | S611     | EVQ21405R    | SW, SUPER BASS            |                 |
|             |              | COIL(S)                  |          | S612     | EVQ21405R    | SW, SUPER BASS LEVEL UP   |                 |
|             |              |                          |          | S613     | EVQ21405R    | SW, SUPER BASS LEVEL DOWN |                 |
| L501, 502   | SLQY07G-40   | COIL                     |          | S614     | EVQ21405R    | SW, SURROUND              |                 |
| L601        | ELEXT100KA9  | COIL                     |          | S701 △   | ESB8249V     | SW, POWER                 |                 |
| L602, 603   | RLQZP101KT-Y | COIL                     |          | S702 △   | ESE37263     | SW, VOLTAGE SELECTOR      |                 |
| L800, 801   | RLQZP470KT-Y | COIL                     |          |          |              |                           |                 |
| L802        | RLQZP101KT-Y | COIL                     |          |          |              | JACK(S)                   |                 |
| L803        | RLQZP3R3KT-Y | COIL                     |          |          |              |                           |                 |
| L804        | RLQZP1R2KT-Y | COIL                     |          | J502     | RJS1A1703    | CONNECTOR(3P)             |                 |
| L805        | RLQZP3R3KT-Y | COIL                     |          | J551     | SJT3213      | CONNECTOR(3P)             |                 |
| L806        | RLQZP1R2KT-Y | COIL                     |          | J701     | RJS1A1705    | CONNECTOR(5P)             |                 |
| L807        | RLQZP3R3KT-Y | COIL                     |          | J201A    | RJU060G07T   | SOCKET                    |                 |
| L808-810    | RLQZP1R2KT-Y | COIL                     |          | J202A    | RJU060G07T   | SOCKET                    |                 |
| L811        | RLQZP3R3KT-Y | COIL                     |          | J203A    | RJU060G07T   | SOCKET                    |                 |
|             |              |                          |          | J204A    | RJU060G07T   | SOCKET                    |                 |
|             |              | TRANSFORMER(S)           |          | J207A    | RJU060G05T   | SOCKET                    |                 |
|             |              |                          |          | J208A    | RJU060G05T   | SOCKET                    |                 |
| T1 △        | RTP1N5E010-W | POWER TRANSFORMER        | (E, EG)  | J209A    | RJU060G05T   | SOCKET                    |                 |
| T1 △        | SLT5N483-W   | POWER TRANSFORMER        | (GC)     | J210A    | RJU060G05T   | SOCKET                    |                 |
| T1 △        | SLT5N481-W   | POWER TRANSFORMER        | (EB, GN) | J501A    | RJS1A1704    | CONNECTOR(4P)             |                 |
|             |              |                          |          | J601A    | RJU003K010M1 | SOCKET(10P)               |                 |
|             |              | OSCILLATOR(S)            |          | J602A    | RJU003K010M1 | SOCKET(10P)               |                 |
|             |              |                          |          | J603A    | RJU003K008M1 | SOCKET(8P)                |                 |
| X601        | EF0GC6004T4  | CERAMIC FILTER           |          | J605A    | RJU003K008M1 | SOCKET(8P)                |                 |
|             |              |                          |          | J631A    | SJT30549BB1  | CONNECTOR                 |                 |
|             |              |                          |          | J632A    | SJT30549BB1  | CONNECTOR                 |                 |

| Ref. No. | Part No.     | Part Name & Description      | Remarks         | Ref. No. | Part No. | Part Name & Description | Remarks         |
|----------|--------------|------------------------------|-----------------|----------|----------|-------------------------|-----------------|
| J633A    | SJT30549BB1  | CONNECTOR                    |                 | FC3, 4 △ | SJT388   | FUSE HOLDER             | (E, EB, EG, GC) |
| J801A    | RJU060G05T   | SOCKET                       |                 |          |          | RELAY                   |                 |
| J802A    | RJU060G05T   | SOCKET                       |                 |          |          |                         |                 |
| J803A    | RJU060G05T   | SOCKET                       |                 |          |          |                         |                 |
| J901A    | RJU060G05T   | SOCKET                       |                 | RL501    | SSY134   | RELAY                   |                 |
| J201B    | RJT060B07    | CONNECTOR                    |                 |          |          |                         |                 |
| J202B    | RJT060B07    | CONNECTOR                    |                 |          |          |                         |                 |
| J203B    | RJT060B07    | CONNECTOR                    |                 |          |          |                         |                 |
| J204B    | RJT060B07    | CONNECTOR                    |                 |          |          |                         |                 |
| J207B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J208B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J209B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J210B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J501B    | RJS1A1704    | SOCKET (4P)                  |                 |          |          |                         |                 |
| J601B    | RJT003K010M1 | CONNECTOR (10P)              |                 |          |          |                         |                 |
| J602B    | RJT003K010M1 | CONNECTOR (10P)              |                 |          |          |                         |                 |
| J603B    | RJT003K008M1 | CONNECTOR (8P)               |                 |          |          |                         |                 |
| J604B    | RJT003K008M1 | CONNECTOR (8P)               |                 |          |          |                         |                 |
| J631B    | SJS50581BB   | SOCKET (5P)                  |                 |          |          |                         |                 |
| J632B    | SJS50581BB   | SOCKET (5P)                  |                 |          |          |                         |                 |
| J633B    | SJS50581BB   | SOCKET (5P)                  |                 |          |          |                         |                 |
| J801B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J802B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J803B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
| J901B    | RJT060B05    | CONNECTOR                    |                 |          |          |                         |                 |
|          |              |                              |                 |          |          |                         |                 |
|          |              | JACK (S)                     |                 |          |          |                         |                 |
|          |              |                              |                 |          |          |                         |                 |
| JK201    | SJF3068N     | TERMINAL, PHONO              |                 |          |          |                         |                 |
| JK202    | SJF3069-5N   | TERMINAL, TAPE               |                 |          |          |                         |                 |
| JK203    | SJF3069N     | TERMINAL, TUNER/CD           |                 |          |          |                         |                 |
| JK204    | SJF3069N     | TERMINAL, DAT/VCR            |                 |          |          |                         |                 |
| JK205    | SJF3069-5N   | TERMINAL, VCR/VDP            |                 |          |          |                         |                 |
| JK206    | SJF3069N     | TERMINAL, EXT                |                 |          |          |                         |                 |
| JK501    | RJR0054M     | TERMINAL, SPEAKER A          |                 |          |          |                         |                 |
| JK502    | SJF3068-6N   | TERMINAL, SPEAKER SURROUND   |                 |          |          |                         |                 |
| JK503    | RJR0054M     | TERMINAL, SPEAKER B          |                 |          |          |                         |                 |
| JK504    | SJJ145A-1    | JACK, HEADPHONES             |                 |          |          |                         |                 |
| JK601    | RJJ33T01     | SYNCHRO, SYSTEM CONT. IN     |                 |          |          |                         |                 |
| JK602    | RJJ33T01     | SYNCHRO, SYSTEM CONT. OUT    |                 |          |          |                         |                 |
| JK603    | RJJ33T01     | SYNCHRO, CONTROL TO TURNTABL |                 |          |          |                         |                 |
| JK801    | SJFD7-2      | TERMINAL, DIGITAL INPUT      |                 |          |          |                         |                 |
| JK901    | SJF3061N     | MONITOR, VCR/VDP             |                 |          |          |                         |                 |
| JK902 △  | SJS9333B     | AC OUTLET                    | (E, EG)         |          |          |                         |                 |
| JK902 △  | SJS9233B     | AC OUTLET                    | (GC)            |          |          |                         |                 |
| JK902 △  | SJS9332B     | AC OUTLET                    | (EB)            |          |          |                         |                 |
| JK903 △  | SJS9231-1B   | AC INLET                     | (E, EB, EG, GC) |          |          |                         |                 |
| JK903 △  | SJS9234B     | AC INLET                     | (GN)            |          |          |                         |                 |
|          |              |                              |                 |          |          |                         |                 |
|          |              | FUSE HOLDER                  |                 |          |          |                         |                 |
|          |              |                              |                 |          |          |                         |                 |
| FC1, 2 △ | SJT388       | FUSE HOLDER                  |                 |          |          |                         |                 |



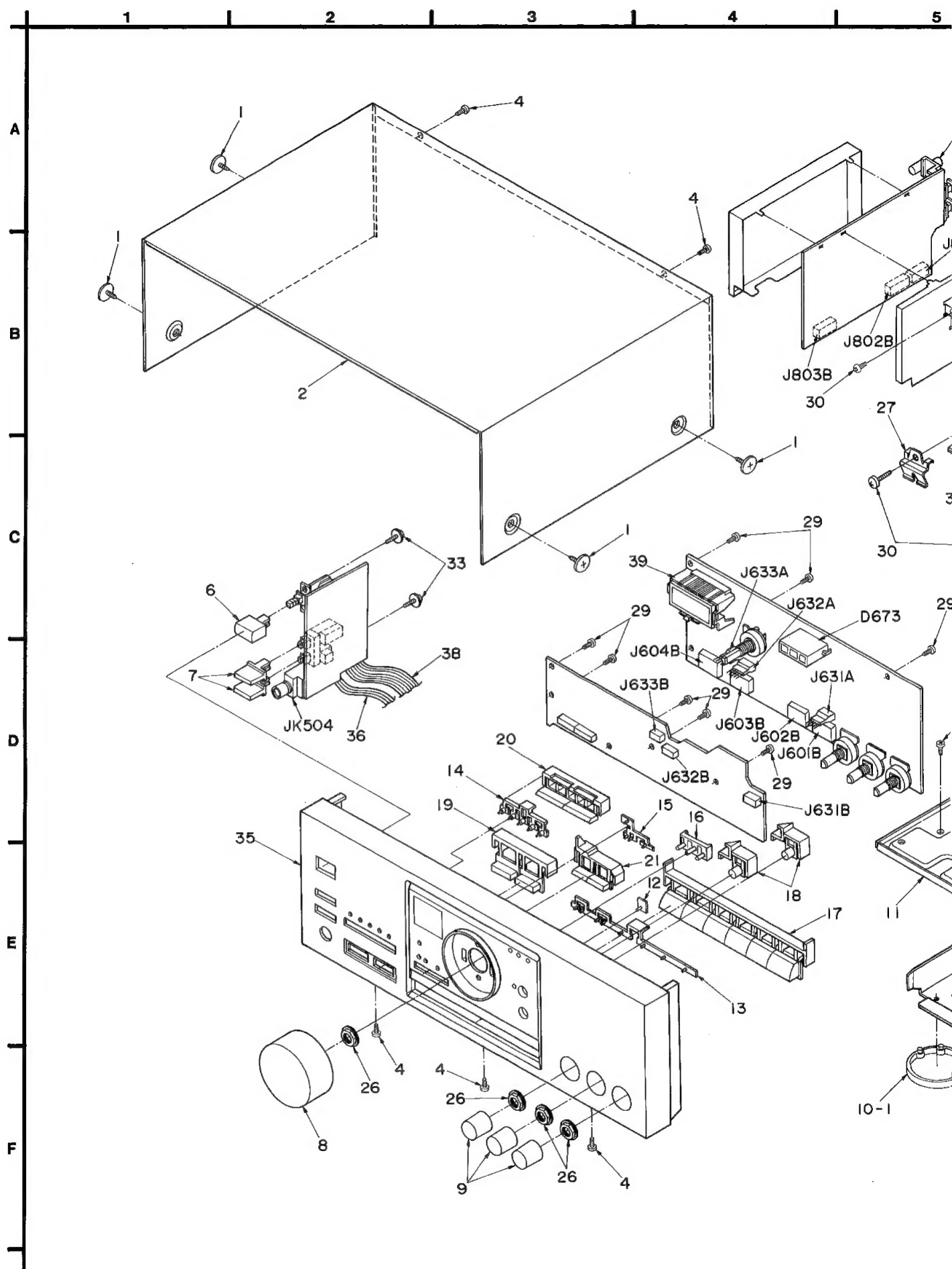
Notes : \* Capacity value are in microfarads (uF) unless specified otherwise, P-Pico-farads (pF) F-Farads (F)  
 \* Resistance values are in ohms, unless specified otherwise, 1K=1,000 (OHM) , 1M=1,000k (OHM)

| Ref. No.  | Part No.    | Values & Remarks | Ref. No.  | Part No.     | Values & Remarks | Ref. No.  | Part No.     | Values & Remarks |
|-----------|-------------|------------------|-----------|--------------|------------------|-----------|--------------|------------------|
|           |             | RESISTORS        | R403, 404 | ERDS2TJ683   | 1/4W 68K         | R527, 528 | ERDS1FVJ100T | 1/2W 10 $\Delta$ |
|           |             |                  | R405, 406 | ERDS2TJ393   | 1/4W 39K         | R529      | ERG1SJ271E   | 1W 270           |
|           |             |                  | R407, 408 | ERDS2TJ333   | 1/4W 33K         | R530      | ERDS2TJ223   | 1/4W 22K         |
| R107, 108 | ERDS2TJ471  | 1/4W 470         | R409, 410 | ERDS2TJ103   | 1/4W 10K         | R531, 532 | ERG2SJ331P   | 2W 330           |
| R109, 110 | ERDS2TJ473  | 1/4W 47K         | R411, 412 | ERDS2TJ332   | 1/4W 3.3K        | R533, 534 | ERDS2TJ562   | 1/4W 5.6K        |
| R111, 112 | ERDS2TJ331  | 1/4W 330         | R413, 414 | ERDS2TJ153   | 1/4W 15K         | R535-538  | ERDS2TJ472   | 1/4W 4.7K        |
| R113, 114 | ERDS2TJ560T | 1/4W 56          | R415, 416 | ERDS2TJ222   | 1/4W 2.2K        | R539      | ERDS2TJ102   | 1/4W 1K          |
| R115, 116 | ERDS2TJ184T | 1/4W 180K        | R417, 418 | ERDS2TJ221   | 1/4W 220         | R540      | ERDS2TJ334   | 1/4W 330K        |
| R117, 118 | ERDS2TJ123  | 1/4W 12K         | R419, 420 | ERDS2TJ273   | 1/4W 27K         | R541      | ERDS2TJ473   | 1/4W 47K         |
| R119, 120 | ERDS2TJ224T | 1/4W 220K        | R421, 422 | ERDS2TJ470   | 1/4W 47          | R542      | ERDS2TJ103   | 1/4W 10K         |
| R121, 122 | ERDS2TJ102  | 1/4W 1K          | R423, 424 | ERDS2TJ153   | 1/4W 15K         | R543      | ERDS1FVJ560T | 1/2W 56 $\Delta$ |
| R123, 124 | ERDS2TJ471  | 1/4W 470         | R425-428  | ERDS2TJ152   | 1/4W 1.5K        | R545, 546 | ERDS2TJ223   | 1/4W 22K         |
| R201, 202 | ERDS2TJ472  | 1/4W 4.7K        | R429, 430 | ERDS2TJ333   | 1/4W 33K         | R550      | ERDS2TJ102   | 1/4W 1K          |
| R203-206  | ERDS2TJ102  | 1/4W 1K          | R431, 432 | ERDS2TJ102   | 1/4W 1K          | R551      | ERDS2TJ104   | 1/4W 100K        |
| R207, 208 | ERDS2TJ822  | 1/4W 8.2K        | R433      | ERDS2TJ105T  | 1/4W 1M          | R552      | ERG1SJ271E   | 1W 270           |
| R209, 210 | ERDS2TJ102  | 1/4W 1K          | R434      | ERDS2TJ334   | 1/4W 330K        | R553      | ERG1SJ221E   | 1W 220           |
| R211, 212 | ERDS2TJ821  | 1/4W 820         | R435, 436 | ERDS2TJ102   | 1/4W 1K          | R554      | ERD25FJ470   | 1/4W 47 $\Delta$ |
| R213, 214 | ERDS2TJ822  | 1/4W 8.2K        | R437      | ERDS2TJ105T  | 1/4W 1M          | R590      | ERDS2TJ392T  | 1/4W 3.9K        |
| R215-218  | ERDS2TJ102  | 1/4W 1K          | R438      | ERDS2TJ334   | 1/4W 330K        | R601      | ERDS2TJ223   | 1/4W 22K         |
| R219, 220 | ERDS2TJ222  | 1/4W 2.2K        | R439, 440 | ERDS2TJ152   | 1/4W 1.5K        | R602-604  | ERDS2TJ393   | 1/4W 39K         |
| R221, 222 | ERDS2TJ392T | 1/4W 3.9K        | R441, 442 | ERDS2TJ222   | 1/4W 2.2K        | R605      | ERDS2TJ223   | 1/4W 22K         |
| R230, 231 | ERDS2TJ102  | 1/4W 1K          | R443, 444 | ERDS2TJ102   | 1/4W 1K          | R606-608  | ERDS2TJ393   | 1/4W 39K         |
| R232, 233 | ERDS2TJ272T | 1/4W 2.7K        | R445      | ERDS2TJ222   | 1/4W 2.2K        | R609-612  | ERDS2TJ100   | 1/4W 10          |
| R249      | ERDS2TJ103  | 1/4W 10K         | R446      | ERDS2TJ104   | 1/4W 100K        | R613      | ERDS2TJ688   | 1/4W 6.8         |
| R250      | ERDS2TJ223  | 1/4W 22K         | R447      | ERDS2TJ334   | 1/4W 330K        | R615, 616 | ERDS2TJ151   | 1/4W 150         |
| R251, 252 | ERDS2TJ473  | 1/4W 47K         | R448      | ERDS2TJ105T  | 1/4W 1M          | R617-620  | ERDS2TJ104   | 1/4W 100K        |
| R253, 254 | ERDS2TJ183T | 1/4W 18K         | R449      | ERDS2TJ332   | 1/4W 3.3K        | R621, 622 | ERDS2TJ103   | 1/4W 10K         |
| R255, 256 | ERDS2TJ153  | 1/4W 15K         | R450      | ERDS2TJ103   | 1/4W 10K         | R623      | ERDS2TJ222   | 1/4W 2.2K        |
| R257, 258 | ERDS2TJ473  | 1/4W 47K         | R451, 452 | ERDS2TJ472   | 1/4W 4.7K        | R624      | ERDS2TJ332   | 1/4W 3.3K        |
| R271, 272 | ERDS2TJ152  | 1/4W 1.5K        | R455      | ERDS2TJ103   | 1/4W 10K         | R625      | ERDS2TJ103   | 1/4W 10K         |
| R297, 298 | ERDS2TJ182  | 1/4W 1.8K        | R456      | ERDS2TJ151   | 1/4W 150         | R626      | ERDS2TJ332   | 1/4W 3.3K        |
| R301-304  | ERDS2TJ223  | 1/4W 22K         | R471-474  | ERDS2TJ334   | 1/4W 330K        | R627      | ERDS2TJ222   | 1/4W 2.2K        |
| R305, 306 | ERDS2TJ224T | 1/4W 220K        | R477, 478 | ERDS2TJ102   | 1/4W 1K          | R628      | ERDS2TJ332   | 1/4W 3.3K        |
| R307, 308 | ERDS2TJ332  | 1/4W 3.3K        | R500      | ERDS2TJ100   | 1/4W 10          | R629      | ERDS2TJ103   | 1/4W 10K         |
| R309, 310 | ERDS2TJ223  | 1/4W 22K         | R501      | ERDS2TJ104   | 1/4W 100K        | R630      | ERDS2TJ102   | 1/4W 1K          |
| R311, 312 | ERDS2TJ393  | 1/4W 39K         | R502      | ERDS2TJ105T  | 1/4W 1M          | R631      | ERDS2TJ103   | 1/4W 10K         |
| R313-315  | ERDS2TJ223  | 1/4W 22K         | R507, 508 | ERDS2TJ222   | 1/4W 2.2K        | R632      | ERDS2TJ222   | 1/4W 2.2K        |
| R316      | ERDS2TJ622T | 1/4W 6.2K        | R509, 510 | ERDS2TJ563   | 1/4W 56K         | R633      | ERDS2TJ103   | 1/4W 10K         |
| R317      | ERDS2TJ562  | 1/4W 5.6K        | R511, 512 | ERDS2TJ182   | 1/4W 1.8K        | R634      | ERDS2TJ822   | 1/4W 8.2K        |
| R318      | ERDS2TJ123  | 1/4W 12K         | R513, 514 | ERDS2TJ563   | 1/4W 56K         | R635      | ERDS2TJ393   | 1/4W 39K         |
| R319      | ERDS2TJ224T | 1/4W 220K        | R515, 516 | ERDS2TJ223   | 1/4W 22K         | R636      | ERDS2TJ332   | 1/4W 3.3K        |
| R321, 322 | ERDS2TJ332  | 1/4W 3.3K        | R517      | ERDS2TJ563   | 1/4W 56K         | R637      | ERDS2TJ103   | 1/4W 10K         |
| R324      | ERDS2TJ332  | 1/4W 3.3K        | R518      | ERDS2TJ684   | 1/4W 680K        | R638      | ERDS2TJ104   | 1/4W 100K        |
| R325, 326 | ERDS2TJ392T | 1/4W 3.9K        | R519      | ERDS2TJ154   | 1/4W 150K        | R639      | ERDS2TJ105T  | 1/4W 1M          |
| R327, 328 | ERDS2TJ104  | 1/4W 100K        | R520      | ERDS2TJ153   | 1/4W 15K         | R640      | ERDS2TJ102   | 1/4W 1K          |
| R329      | ERDS2TJ332  | 1/4W 3.3K        | R521      | ERDS2TJ103   | 1/4W 10K         | R641      | ERDS2TJ223   | 1/4W 22K         |
| R331      | ERDS2TJ105T | 1/4W 1M          | R522      | ERDS1FVJ680T | 1/2W 68 $\Delta$ | R642      | ERDS2TJ103   | 1/4W 10K         |
| R332      | ERDS2TJ334  | 1/4W 330K        | R524      | ERDS2TJ105T  | 1/4W 1M          | R643      | ERDS2TJ105T  | 1/4W 1M          |
| R401, 402 | ERDS2TJ123  | 1/4W 12K         | R525, 526 | ERD25FVJ100T | 1/4W 10 $\Delta$ | R646      | ERDS2TJ223   | 1/4W 22K         |

| Ref. No.  | Part No.     | Values & Remarks   | Ref. No.    | Part No.     | Values & Remarks  | Ref. No.  | Part No.     | Values & Remarks |
|-----------|--------------|--------------------|-------------|--------------|-------------------|-----------|--------------|------------------|
| R647      | ERDS2TJ103   | 1/4W 10K           | R855, 856   | ERDS2TJ103   | 1/4W 10K          |           |              |                  |
| R651      | ERDS2TJ331   | 1/4W 330           | R857        | ERDS2TJ471   | 1/4W 470          | C107, 108 | ECBT1H101KB5 | 50V 100P         |
| R652      | ERDS2TJ181T  | 1/4W 180           | R858        | ERDS2TJ182   | 1/4W 1.8K         | C109, 110 | ECBT1H102KB5 | 50V 1000P        |
| R653, 654 | ERDS2TJ331   | 1/4W 330           | R860-864    | ERDS2TJ101   | 1/4W 100          | C111, 112 | ECA1EAP330B  | 25V 33U          |
| R655, 656 | ERDS2TJ181T  | 1/4W 180           | R901, 902   | ERDS2TJ471   | 1/4W 470          | C115, 116 | ECFR1E223KR  | 25V 0.022U       |
| R657, 658 | ERDS2TJ390   | 1/4W 39            | R904, 905   | ERDS2TJ392T  | 1/4W 3.9K         | C117, 118 | ECFR1E682KR  | 25V 6800P        |
| R659, 660 | ERDS2TJ272T  | 1/4W 2.7K          | R906, 907   | ERDS2TJ103   | 1/4W 10K          | C119, 120 | ECA1HAP010B  | 50V 1U           |
| R661      | ERDS2TJ331   | 1/4W 330           | R908        | ERDS2TJ182   | 1/4W 1.8K         | C121, 122 | ECBT1E103ZF  | 25V 0.01U        |
| R662      | ERDS2TJ101   | 1/4W 100           | R909        | ERG1SJ151E   | 1W 150            | C200      | ECBT1E223ZF  | 25V 0.022U       |
| R663      | ERDS2TJ331   | 1/4W 330           | R910        | ERDS2TJ102   | 1/4W 1K           | C201      | ECBT1H470J5  | 50V 47P          |
| R697-699  | ERDS2TJ101   | 1/4W 100           | R911        | ERDS2TJ392T  | 1/4W 3.9K         | C203, 204 | ECBT1E103ZF  | 25V 0.01U        |
| R701, 702 | ERDS1FVJ332T | 1/2W 3.3K $\Delta$ | R912, 913   | ERDS2TJ470   | 1/4W 47           | C205, 206 | ECBT1H180J5  | 50V 18P          |
| R703      | ERD25FJ101   | 1/4W 100 $\Delta$  | R914        | ERDS1FVJ101T | 1/2W 100 $\Delta$ | C207, 208 | ECBT1H151KB5 | 50V 150P         |
| R704      | ERDS2TJ473   | 1/4W 47K           | R915, 916   | ERDS2TJ561   | 1/4W 560          | C209-216  | ECBT1H101KB5 | 50V 100P         |
| R705      | ERDS2TJ103   | 1/4W 10K           | R917        | ERDS2TJ471   | 1/4W 470          | C219, 220 | ECBT1H151KB5 | 50V 150P         |
| R706      | ERDS1FVJ2R2T | 1/2W 2.2 $\Delta$  | R918, 919   | ERDS2TJ470   | 1/4W 47           | C221-230  | ECBT1H101KB5 | 50V 100P         |
| R707      | ERDS1FVJ3R3T | 1/2W 3.3 $\Delta$  | R920        | ERDS2TJ393   | 1/4W 39K          | C231, 232 | ECBT1E103ZF  | 25V 0.01U        |
| R709      | ERDS2TJ332   | 1/4W 3.3K          | R1301, 1302 | ERDS2TJ102   | 1/4W 1K           | C250      | ECEA1CKA220B | 16V 22U          |
| R710      | ERDS1FVJ331T | 1/2W 330 $\Delta$  | R1303, 1304 | ERDS2TJ822   | 1/4W 8.2K         | C251, 252 | ECEA1HKA3R3B | 50V 3.3U         |
| R711      | ERDS2TJ102   | 1/4W 1K            | R1305, 1306 | ERDS2TJ223   | 1/4W 22K          | C253, 254 | ECEA1HKAR47B | 50V 0.47U        |
| R713      | ERDS2TJ2R2T  | 1/4W 2.2           | R1307, 1308 | ERDS2TJ392T  | 1/4W 3.9K         | C255, 256 | ECBT1H180J5  | 50V 18P          |
| R716      | ERDS2TJ2R2T  | 1/4W 2.2           | R1309, 1310 | ERDS2TJ182   | 1/4W 1.8K         | C258, 259 | ECBT1E223ZF  | 25V 0.022U       |
| R717      | ERDS2TJ150T  | 1/4W 15            | R1311, 1312 | ERDS2TJ821   | 1/4W 820          | C271, 272 | ECBT1H101KB5 | 50V 100P         |
| R721, 722 | ERDS2TJ334   | 1/4W 330K          | R1313, 1314 | ERDS2TJ333   | 1/4W 33K          | C273, 274 | ECEA1CKA220B | 16V 22U          |
| R723      | ERDS2TJ472   | 1/4W 4.7K          | R1501, 1502 | ERDS2TJ123   | 1/4W 12K          | C297, 298 | ECBT1H151KB5 | 50V 150P         |
| R727      | ERDS2TJ104   | 1/4W 100K          | R1503, 1504 | ERDS2TJ103   | 1/4W 10K          | C301, 302 | ECA1HAP3R3B  | 50V 3.3U         |
| R801      | ERDS2TJ750   | 1/4W 75            | R1505, 1506 | ERDS2TJ101   | 1/4W 100          | C303      | ECBT1H680J5  | 50V 68P          |
| R803      | ERDS2TJ104   | 1/4W 100K          | R1507, 1508 | RREEMKR10VC  | 2W 0.1            | C304      | ECQV1H823JZ  | 50V 0.082U       |
| R804      | ERDS2TJ182   | 1/4W 1.8K          | R1509-1512  | ERDS2TJ103   | 1/4W 10K          | C305      | ECEA1HKA3R3B | 50V 3.3U         |
| R805      | ERDS2TJ122   | 1/4W 1.2K          | R1513-1516  | ERDS2TJ104   | 1/4W 100K         | C306      | ECBT1H221KB5 | 50V 220P         |
| R809      | ERDS2TJ122   | 1/4W 1.2K          | R1517, 1518 | ERDS2TJ472   | 1/4W 4.7K         | C307      | ECEA1HKA3R3B | 50V 3.3U         |
| R810      | ERDS2TJ103   | 1/4W 10K           | R1519, 1520 | ERDS2TJ272T  | 1/4W 2.7K         | C309, 310 | ECBT1H820KB5 | 50V 82P          |
| R811      | ERDS2TJ102   | 1/4W 1K            | R1521-1526  | ERDS2TJ563   | 1/4W 56K          | C311, 312 | ECA1HAP3R3B  | 50V 3.3U         |
| R813      | ERDS2TJ102   | 1/4W 1K            | R1527, 1528 | ERDS2TJ103   | 1/4W 10K          | C313, 314 | ECBT1E103ZF  | 25V 0.01U        |
| R814      | ERDS2TJ103   | 1/4W 10K           | R1529, 1530 | ERDS2TJ392T  | 1/4W 3.9K         | C395, 396 | ECBT1H120J5  | 50V 12P          |
| R815      | ERDS2TJ560T  | 1/4W 56            | R1531, 1532 | ERDS2TJ223   | 1/4W 22K          | C398, 399 | ECBT1E103ZF  | 25V 0.01U        |
| R816      | ERDS2TJ472   | 1/4W 4.7K          | R1533, 1534 | ERDS2TJ472   | 1/4W 4.7K         | C411, 412 | ECFR1E473KR  | 25V 0.047U       |
| R817-819  | ERDS2TJ473   | 1/4W 47K           | R1535, 1536 | ERDS2TJ223   | 1/4W 22K          | C413, 414 | ECEA1HKAR22B | 50V 0.22U        |
| R821      | ERDS2TJ101   | 1/4W 100           | R1537, 1538 | ERDS2TJ103   | 1/4W 10K          | C415, 416 | ECFR1E682KR  | 25V 6800P        |
| R823      | ERDS2TJ472   | 1/4W 4.7K          | R1539       | ERDS2TJ333   | 1/4W 33K          | C417, 418 | ECFR1E272KR  | 25V 2700P        |
| R827      | ERDS1FVJ271T | 1/2W 270 $\Delta$  | R1540       | ERDS2TJ102   | 1/4W 1K           | C419, 420 | ECFR1E333KR  | 25V 0.033U       |
| R828      | ERDS1FVJ680T | 1/2W 68 $\Delta$   | R1541, 1542 | ERDS2TJ752T  | 1/4W 7.5K         | C421, 422 | ECEA1HKA3R3B | 50V 3.3U         |
| R829      | ERDS1FVJ820T | 1/2W 82 $\Delta$   | R1551, 1552 | ERDS2TJ183T  | 1/4W 18K          | C423, 424 | ECA1HAP100B  | 50V 10U          |
| R833, 834 | ERDS2TJ221   | 1/4W 220           | R1553, 1554 | ERDS2TJ103   | 1/4W 10K          | C427      | ECEA0JKA470B | 6.3V 47U         |
| R837, 838 | ERDS2TJ474   | 1/4W 470K          | R1555, 1556 | ERDS2TJ562   | 1/4W 5.6K         | C432      | ECEA1CKA100B | 16V 10U          |
| R839, 840 | ERDS2TJ102   | 1/4W 1K            | R1557, 1558 | ERDS2TJ103   | 1/4W 10K          | C433, 434 | ECBT1E103ZF  | 25V 0.01U        |
| R841      | ERDS2TJ104   | 1/4W 100K          | R1559, 1560 | ERDS2TJ273   | 1/4W 27K          | C451, 452 | ECEA1CKA220B | 16V 22U          |
| R842-844  | ERDS2TJ272T  | 1/4W 2.7K          | R1561-1564  | ERDS2TJ102   | 1/4W 1K           | C453, 454 | ECA1HAP010B  | 50V 1U           |
| R845-848  | ERDS2TJ471   | 1/4W 470           | R1565, 1566 | ERDS2TJ123   | 1/4W 12K          | C455      | ECEA1CKA220B | 16V 22U          |
| R849      | ERDS2TJ105T  | 1/4W 1M            | R1567, 1568 | ERDS2TJ683   | 1/4W 68K          | C456      | ECEA1CKA100B | 16V 10U          |
| R850      | ERDS2TJ182   | 1/4W 1.8K          |             |              |                   | C457      | ECEA1CKA220B | 16V 22U          |
| R851, 852 | ERDS2TJ392T  | 1/4W 3.9K          |             |              | CAPACITORS        | C471, 472 | ECA1HAP3R3B  | 50V 3.3U         |

| Ref. No.  | Part No.     | Values & Remarks    | Ref. No.    | Part No.     | Values & Remarks |  |  |  |
|-----------|--------------|---------------------|-------------|--------------|------------------|--|--|--|
| C473, 474 | ECBT1H101KB5 | 50V 100P            | C805        | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C475, 476 | ECBT1H821KB5 | 50V 820P            | C806        | ECFR1E104ZF5 | 25V 0.1U         |  |  |  |
| C477, 478 | ECBT1H680J5  | 50V 68P             | C807        | ECEA1CKA100B | 16V 10U          |  |  |  |
| C479, 480 | ECEA1HKA3R3B | 50V 3.3U            | C808        | ECEA1HKA010B | 50V 1U           |  |  |  |
| C483, 484 | ECBT1E103ZF  | 25V 0.01U           | C809        | ECQV1H104JZ3 | 50V 0.1U         |  |  |  |
| C501, 502 | ECBT1H331KB5 | 50V 330P            | C810        | ECBT1H220J5  | 50V 22P          |  |  |  |
| C503, 504 | ECBT1H151KB5 | 50V 150P            | C811        | ECEA0JKA101B | 6.3V 100U        |  |  |  |
| C505, 506 | ECA1HAP2R2B  | 50V 2.2U            | C814        | ECEA0JKA101B | 6.3V 100U        |  |  |  |
| C507, 508 | ECBT1H100J5  | 50V 10P             | C815        | ECEA1CKA100B | 16V 10U          |  |  |  |
| C509, 510 | ECKT1H223ZF  | 50V 0.022U          | C816        | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C513      | ECEA1CKA100B | 16V 10U             | C818        | ECEA1EKA4R7B | 25V 4.7U         |  |  |  |
| C514      | ECEA0JKA470B | 6.3V 47U            | C819, 820   | ECEA0JKA101B | 6.3V 100U        |  |  |  |
| C516-518  | ECBT1E103ZF  | 25V 0.01U           | C821        | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C519      | ECA1HAP330B  | 50V 33U             | C822        | ECEA1EKA100B | 25V 10U          |  |  |  |
| C520      | ECA2AAP100B  | 100V 10U            | C823        | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C521      | ECA1EM101B   | 25V 100U            | C825, 826   | ECEA1CKN100B | 16V 10U          |  |  |  |
| C523, 524 | ECA1HAP3R3B  | 50V 3.3U            | C827, 828   | ECBT1C103NS5 | 16V 0.01U        |  |  |  |
| C525, 526 | ECBT1H561KB5 | 50V 560P            | C829, 830   | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C535, 536 | ECBT1E223ZF  | 25V 0.022U          | C831        | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C537, 538 | ECBT1H102KB5 | 50V 1000P           | C833        | ECBT1H104ZF5 | 50V 0.1U         |  |  |  |
| C539, 540 | ECBT1E223ZF  | 25V 0.022U          | C834        | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C541-546  | ECBT1H102KB5 | 50V 1000P           | C835        | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C597, 598 | ECBT1H102KB5 | 50V 1000P           | C836-838    | ECEA1EKA4R7B | 25V 4.7U         |  |  |  |
| C601      | ECBT1E103ZF  | 25V 0.01U           | C840        | ECBT1H331KB5 | 50V 330P         |  |  |  |
| C602      | ECEA0JU102   | 6.3V 1000U          | C843        | ECBT1H220J5  | 50V 22P          |  |  |  |
| C603      | ECEA1HKA3R3B | 50V 3.3U            | C844        | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C604      | ECEA1VKA100B | 35V 10U             | C901        | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C605      | ECBT1E103ZF  | 25V 0.01U           | C902        | ECEA1CKA100B | 16V 10U          |  |  |  |
| C606, 607 | ECEA1HKA010B | 50V 1U              | C903, 904   | ECEA1CKA470B | 16V 47U          |  |  |  |
| C608      | ECBT1H101KB5 | 50V 100P            | C1301, 1302 | ECFR1E123KR  | 25V 0.012U       |  |  |  |
| C610      | ECEA1HKA010B | 50V 1U              | C1303, 1304 | ECFR1E683KR  | 25V 0.068U       |  |  |  |
| C651, 652 | ECBT1H104ZF5 | 50V 0.1U            | C1305, 1306 | ECFR1E472KR  | 25V 4700P        |  |  |  |
| C653, 654 | ECBT1H470J5  | 50V 47P             | C1307, 1308 | ECFR1E223KR  | 25V 0.022U       |  |  |  |
| C700      | ECKWNS103ZV  | 500V 0.01U $\Delta$ | C1309, 1310 | ECA1HAP010B  | 50V 1U           |  |  |  |
| C701      | ECBT1H102KB5 | 50V 1000P           | C1501-1504  | ECEA1HKA2R2B | 50V 2.2U         |  |  |  |
| C702      | ECKR1H103ZF5 | 50V 0.01U           | C1505, 1506 | ECFR1E223KR  | 25V 0.022U       |  |  |  |
| C703, 704 | ECEA1EKA100B | 25V 10U             | C1507, 1508 | ECBT1H820KB5 | 50V 82P          |  |  |  |
| C705, 706 | ECEA1CKA100B | 16V 10U             | C1509-1512  | ECFR1E104KR  | 25V 0.1U         |  |  |  |
| C707      | ECBT1E103ZF  | 25V 0.01U           | C1513, 1514 | ECBT1H331KB5 | 50V 330P         |  |  |  |
| C708      | ECEA1AU221   | 10V 220U            | C1515, 1516 | ECBT1C103MS5 | 16V 0.01U        |  |  |  |
| C709      | ECEA1HKA2R2B | 50V 2.2U            | C1517, 1518 | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C710      | ECBT1E223ZF  | 25V 0.022U          | C1521A      | ECA1HAP2R2B  | 50V 2.2U         |  |  |  |
| C711, 712 | ECES56V472NX | 56V 4700U           | C1521       | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C713      | ECQE2104KF3  | 100V 0.1U           | C1522A      | ECA1HAP2R2B  | 50V 2.2U         |  |  |  |
| C715      | ECEA1VKA100B | 35V 10U             | C1522       | ECBT1H102KB5 | 50V 1000P        |  |  |  |
| C716      | ECBT1H102KB5 | 50V 1000P           | C1551, 1552 | ECA1HAP3R3B  | 50V 3.3U         |  |  |  |
| C721      | ECEA1HKA010B | 50V 1U              | C1553, 1554 | ECBT1H151KB5 | 50V 150P         |  |  |  |
| C731      | ECFR1E104ZF5 | 25V 0.1U            | C1555, 1556 | ECEA1HKA2R2B | 50V 2.2U         |  |  |  |
| C800      | ECBT1E223ZF  | 25V 0.022U          | C1557, 1558 | ECQV1H124JZ3 | 50V 0.12U        |  |  |  |
| C801      | ECBT1E103ZF  | 25V 0.01U           | C1559, 1560 | ECBT1E103ZF  | 25V 0.01U        |  |  |  |
| C802, 803 | ECEA1CKA100B | 16V 10U             |             |              |                  |  |  |  |
| C804      | ECBT1H104ZF5 | 50V 0.1U            |             |              |                  |  |  |  |

# ■ CABINET PARTS LOCATION

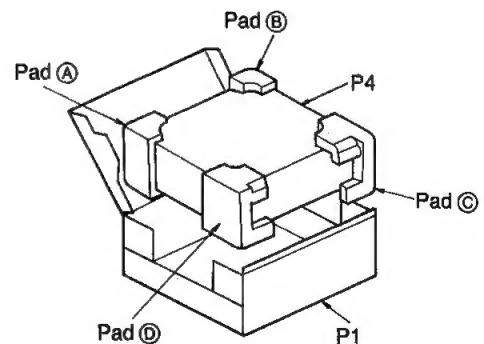
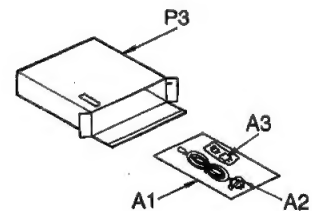




| Ref. No. | Part No.           | Part Name & Description    | Remarks         |
|----------|--------------------|----------------------------|-----------------|
|          |                    | CABINET PARTS              |                 |
| 1        | RHD30007           | SCREW                      |                 |
| 2        | RKMD024A-2K        | CABINET                    |                 |
| 3        | SJP9205-2Y         | SHORTING PIN               |                 |
| 4        | XTBS3+8JFZ1        | SCREW                      |                 |
| 5        | RGR0105C-C1        | REAR PANEL                 | (E)             |
| 5        | RGR0105B-B1        | REAR PANEL                 | (EB)            |
| 5        | RGR0105C-D1        | REAR PANEL                 | (EG)            |
| 5        | RGR0105D-1         | REAR PANEL                 | (GC)            |
| 5        | RGR0105E-1         | REAR PANEL                 | (GN)            |
| 6        | RGU0030            | BUTTON, POWER              |                 |
| 7        | RGU0101            | BUTTON, SPEAKER            |                 |
| 8        | RGW0121-K          | KNOB, MAIN VOL.            |                 |
| 9        | RGW0125-K          | KNOB, BALANCE VOL.         |                 |
| 10       | RFKJUX502E-K       | CHASSIS ASS'Y              |                 |
| 10-1     | RKA0011-2          | FOOT                       |                 |
| 11       | RMA0138            | PLATE                      |                 |
| 12       | RFKMUX502EAK       | PANEL LIGHT                |                 |
| 13       | RGL0094-X          | PANEL LIGHT                |                 |
| 14       | RGL0096-X          | PANEL LIGHT                |                 |
| 15       | RFKMUX502EBK       | PANEL LIGHT                |                 |
| 16       | RGL0131-C          | PANEL LIGHT                |                 |
| 17       | RGU0470-K1         | BUTTON, SELECT             |                 |
| 18       | RGU0471-K1         | BUTTON, VOL. PRESET        |                 |
| 19       | RGU0472-C          | KNOB, S. DYNAMIC           |                 |
| 20       | RGU0473-K1         | BUTTON, S. DYNAMIC UP/DOWN |                 |
| 21       | RGU0474A-K         | BUTTON, TAPE               |                 |
| 22       | SHE187-2           | HOLDER                     |                 |
| 23       | SJS9231A           | AC INLET COVER             | (E, EB, EG, GC) |
| 23       | SJS9234A           | AC INLET COVER             | (GN)            |
| 24       | SJS9333A           | AC OUTLET COVER            | (E, EG)         |
| 24       | SJS9332A           | AC OUTLET COVER            | (EB)            |
| 24       | SJS9233A           | AC OUTLET COVER            | (GC)            |
| 25       | SNE2123            | GND SCREW                  |                 |
| 26       | SNE4021-1          | NUT                        |                 |
| 27       | <del>SXS894V</del> | ANGLE                      | RMCO158         |
| 28       | SYE1128-2          | FAN ASS'Y                  |                 |
| 28-1     | SHE232             | FAN                        |                 |
| 28-2     | SUS271             | SPRING                     |                 |
| 28-3     | SHE233             | FAN CASE                   |                 |
| 28-4     | MDN-4RB4MRC        | MOTOR                      |                 |
| 29       | XTBS26+8J          | SCREW                      |                 |
| 30       | XTB3+16JFZ         | SCREW                      |                 |
| 31       | XTB3+20JFZ         | SCREW                      |                 |
| 32       | XTB3+8JFZ          | SCREW                      |                 |
| 33       | XTWS3+8T           | SCREW                      |                 |
| 34       | XYN3+C6FZ          | SCREW                      | (GC)            |
| 35       | RFKGUX502E-K       | FRONT PANEL ASS'Y          |                 |
| 36       | RWJ1803200KQ       | FLAT CABLE                 |                 |
| 37       | RWJ1805110KQ       | FLAT CABLE                 |                 |

| Ref. No. | Part No.     | Part Name & Description  | Remarks     |
|----------|--------------|--------------------------|-------------|
| 38       | RWJ1808150KQ | FLAT CABLE               |             |
| 39       | FMN0102      | FL HOLDER                |             |
|          |              | PACKING MATERIAL         |             |
| P1       | RPG0840      | PACKING CASE             |             |
| P2       | RPN0412      | PAD ASS'Y                |             |
| P3       | SPSD152      | ACCESSORY BOX            |             |
| P4       | XZB60X65A01Z | PROTECTION COVER         |             |
|          |              | ACCESSORIES              |             |
| A1       | RQF1096      | INSTRUCTION MANUAL ASS'Y | (E)         |
| A1       | RQF1097      | INSTRUCTION MANUAL ASS'Y | (EB)        |
| A1       | RQF1098      | INSTRUCTION MANUAL ASS'Y | (EG)        |
| A1       | RQF1095      | INSTRUCTION MANUAL ASS'Y | (GN)        |
| A1       | RQF1094      | INSTRUCTION MANUAL ASS'Y | (GC)        |
| A1-1     | RQA0013      | WARRANTY CARD            | (E, EB, EG) |
| A1-1     | SQX7186      | WARRANTY CARD            | (GN)        |
| A1-2     | RQCB0169     | SERVICENTER LIST         |             |
| A1-3     | RFKSUX502E-K | INSTRUCTION MANUAL       | (E)         |
| A1-3     | RQT1000-B    | INSTRUCTION MANUAL       | (EB, GN)    |
| A1-3     | RQT1001-D    | INSTRUCTION MANUAL       | (EG)        |
| A1-3     | RQT0998-G    | INSTRUCTION MANUAL       | (GC)        |
| A1-4     | SPB1061      | POLYETHYLEN COVER        |             |
| A2 △     | SJA187       | AC CORD                  | (E, EG)     |
| A2 △     | SJA188       | AC CORD                  | (EB)        |
| A2 △     | SJA173       | AC CORD                  | (GN)        |
| A2 △     | RJA0004      | AC CORD                  | (GC)        |
| A3 △     | SJP9215      | AC PLUG UADAPTOR         | (GC)        |

## ■ PACKAGING



P2: Pad (A) (B) (C) (D) Ass'y; RPN0412